

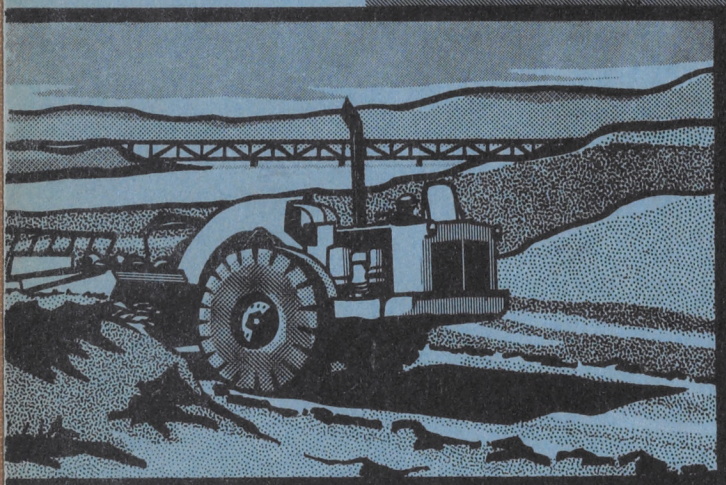
UNIVERSITY OF ALBERTA LIBRARY



0 0003 1055 767

# Annual Report

on prairie farm rehabilitation  
and related activities



**A**

HD  
1781  
A2  
P8223  
1961/1962

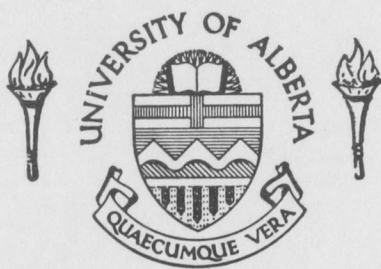
1961  
1962

SCI

CANADA DEPARTMENT OF AGRICULTURE



Ex libris  
UNIVERSITATIS  
ALBERTAENSIS







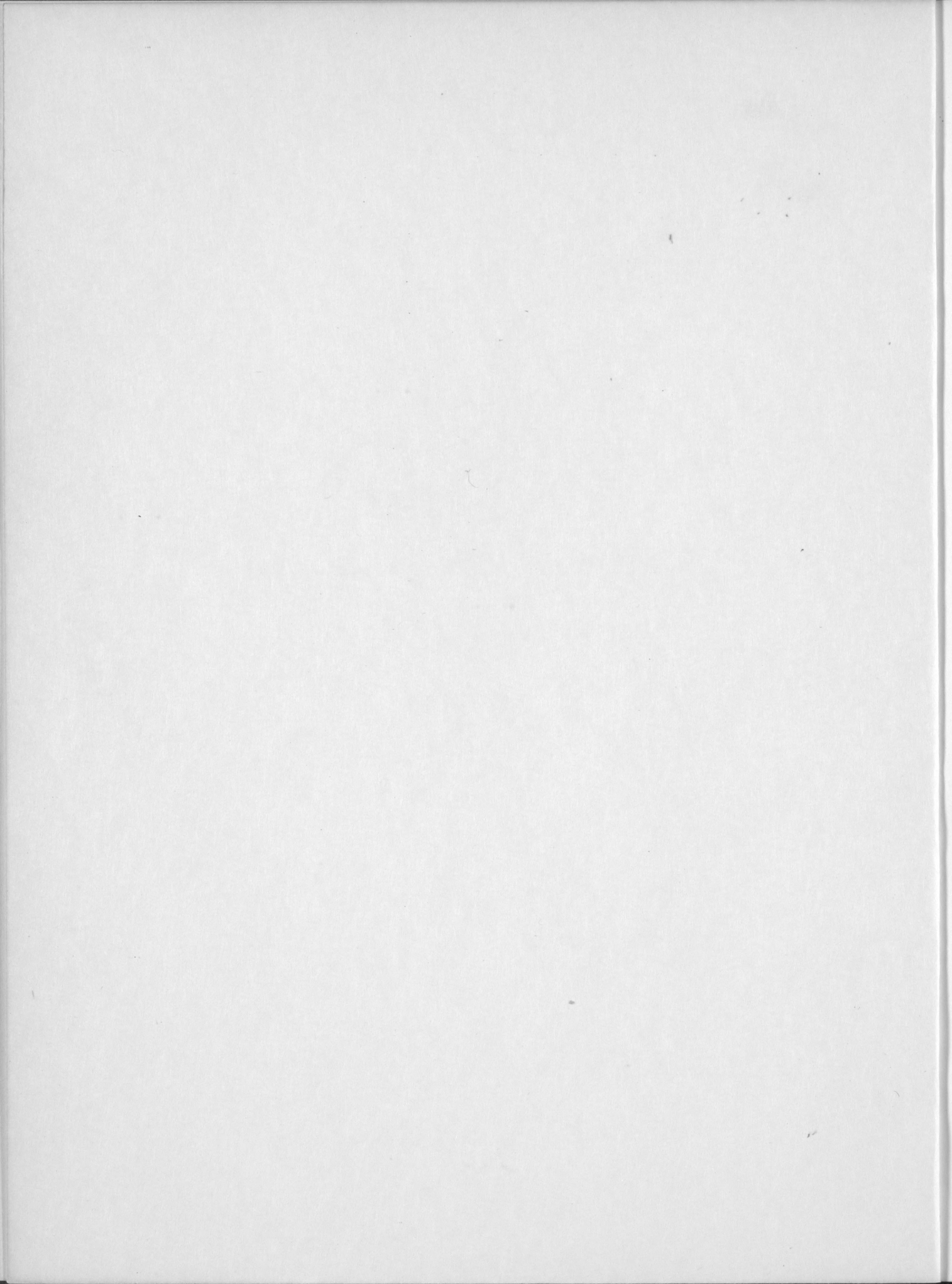














# TABLE OF CONTENTS

*Science*  
110  
Page  
110/112

INTRODUCTION	1
ADMINISTRATION and ORGANIZATION	2
ADMINISTRATIVE SERVICES BRANCH	2
Information Division	1
Land Division	2
CONSTRUCTION, EQUIPMENT and SUPPLY DIVISION	3
WATER DEVELOPMENT PROGRAM	7
Farm and Community Projects	7
Large Water Development Projects	9
LaSalle River Dam	10
Perry Park Dam	10
Plumlee Dam	10
Bellevue Dam	10
Owens Community Project	11
Buck Hills Community Project	11
Cleveland Dam	11
Antler Creek Project (Canada's Dam)	12
West Paplar River Development Conservation Reservoir No. 1	12
Northlyn Irrigation Project	13
Parr-Caster Project	13
Technical Assistance	14
COMMUNITY PASTURE PROGRAM	16
Pasture Operations	16
Pasture Services	18
Haying and Regrazing	19
Fire and Fire Protection	20
Crushhopper Control	20
Breeding Service	20
Livestock Census	20
Livestock Inspection	21
Pasture Construction	21
Pasture Improvement	22
REHABILITATION and RESETTLEMENT	24
MAJOR IRRIGATION and RECLAMATION PROJECTS	27
St. Mary Irrigation Project	27

GENERAL SCIENCES

## ANNUAL REPORT

## PRAIRIE FARM REHABILITATION

## and RELATED ACTIVITIES

1961 - 62

UNIVERSITY  
YEARLY ARCHIVE NO

315392



ANNUAL REPORT

PRAIRIE FARM REHABILITATION

and RELATED ACTIVITIES

1981 - 82

UNIVERSITY  
OF ALBERTA LIBRARY

# TABLE OF CONTENTS

	Page
INTRODUCTION .....	
ADMINISTRATION and ORGANIZATION .....	
ADMINISTRATIVE SERVICES BRANCH .....	1
Information Division .....	1
Land Division .....	2
CONSTRUCTION, EQUIPMENT and SUPPLY DIVISION .....	5
WATER DEVELOPMENT PROGRAM .....	7
Farm and Community Projects .....	7
Large Water Development Projects .....	9
LaSalle River Dams .....	10
Perry Park Dam .....	10
Plumas Dam .....	10
Deloraine Dam .....	10
Boissevain Water Storage Project .....	10
Oungre Community Project .....	11
Birch Hills Community Storage Project .....	11
Cleland Dam .....	11
Antler Creek Project (Carnduff Dam) .....	12
West Poplar River Development Conservation Reservoir No. 1 .....	12
Nashlyn Irrigation Project .....	13
Parr-Castor Project .....	13
Technical Assistance .....	14
COMMUNITY PASTURE PROGRAM .....	16
Pasture Operations .....	16
Pasture Services .....	18
Haying and Regrassing .....	19
Fires and Fire Protection .....	20
Grasshopper Control .....	20
Breeding Service .....	20
Livestock Losses .....	20
Livestock Insurance .....	21
Pasture Construction .....	21
Pasture Improvement .....	22
REHABILITATION and RESETTLEMENT .....	24
MAJOR IRRIGATION and RECLAMATION PROJECTS .....	27
St. Mary Irrigation Project .....	27



# TABLE OF CONTENTS (continued)

	Page
Engineering and Construction .....	28
Operation and Maintenance .....	29
Agricultural Development .....	29
Recreation .....	29
Bow River Irrigation Project .....	29
Construction .....	31
Operation and Maintenance .....	31
Agricultural Development .....	32
South Saskatchewan River Project .....	33
General .....	33
Design and Planning .....	34
Construction Activities .....	34
Public Relations .....	36
Pre-development Farm .....	36
Buffalo Pound Lake Water Supply Project .....	38
Assiniboine River Project .....	39
Northwest Escarpment and Interlake Reclamation Project .....	40
ENGINEERING SERVICES .....	42
Design Division .....	42
Drafting Section .....	42
Air Photo Analysis and Engineering Geology Division .....	42
Soil Mechanics and Materials Division .....	44
Hydrology Division .....	45
Surveys .....	46
APPENDICES .....	48
Appendix I	
Water Development Program – Progress by Years in the Construction of Individual, Neighbor and Community Projects .....	48
Appendix II	
Water Development Program – Number of Individual, Neighbor, Community and Large Water Development Projects and amount of financial assistance paid from April 1, 1961 to March 31, 1962 .....	49
Appendix III	
Water Development Program – Number of Individual, Neighbor, Community and Large Water Development Projects and amount of financial assistance paid from April 1, 1935 to March 31, 1962 .....	50
Appendix IV	
Community Water Storage and Irrigation Projects to March 31, 1962 .....	51

## TABLE OF CONTENTS (continued)

Page

### APPENDICES (continued)

#### Appendix V

Cumulative Statement – Development and Operation of Community Pastures under the Prairie Farm Rehabilitation Act 1938 to March 31, 1962 .....	70
--	----

#### Appendix VI

P.F.R.A. Community Pastures in Operation During the Fiscal Year Ended March 31, 1962 .....	71
---	----

#### Appendix VII

Major Projects – Irrigation, Reclamation and Water Storage to March 31, 1962 .....	74
---	----

#### Appendix VIII

PFRA Expenditures by Activities April 1, 1935 to March 31, 1962 .....	76
--	----



# PLANS

	Page	Plate Number
Small Water Projects .....	I	
Community Pastures .....	II	
St. Mary River Project .....	III	
Bow River Project .....	IV	
Existing and Proposed Control Works Assiniboine River .....	V	
Water Development Program - Progress by Years in the Construction of Individual, Neighbor and Community Projects .....	48	
Water Development Program - Number of Individual, Neighbor, Community and Large Water Development Projects and amount of financial assistance paid from April 1, 1961 to March 31, 1962 .....	49	
Water Development Program - Number of Individual, Neighbor, Community and Large Water Development Projects and amount of financial assistance paid from April 1, 1965 to March 31, 1962 .....	50	
Community Water Storage and Irrigation Projects to March 31, 1962 .....	51	

## ADMINISTRATION and ORGANIZATION

The Prairie Farm Rehabilitation Act is administered by a Director who is responsible to the Deputy Minister of Agriculture in Ottawa. The headquarters of the Organization is located at Regina and consists of three main branches: Administrative Services, Agricultural Services and Engineering Services. In addition, there are a Legal Division and a Construction, Equipment and Supply Division, both directly responsible to the Director.

The Administrative Services Branch consists of units providing financial, personnel and office services, as well as an Information Division.

### INTRODUCTION

The Agricultural Services Branch is responsible for all activities associated with the develop-

The Prairie Farm Rehabilitation Act was passed by the Parliament of Canada in 1935 to provide for the rehabilitation of drouth and soil drifting areas of Manitoba, Saskatchewan and Alberta. In 1937 the Act was amended to include land utilization and resettlement and by further amendment in 1939, it was extended to remain in force indefinitely.

As originally conceived, assistance under the Act mainly concerned activities centering around the conservation and reclamation of land and water resources throughout the southern plains area of the three Prairie Provinces. In more recent years, however, P.F.R.A. has also been made responsible for the development of large-scale irrigation and reclamation projects in Western Canada, and in 1961, the boundaries of P.F.R.A. were extended to provide assistance in the field of soil and water conservation to all agricultural areas within the three Prairie Provinces.

The following report presents a review of activities carried out by the Prairie Farm Rehabilitation Administration during 1961.





## ADMINISTRATION and ORGANIZATION

The Prairie Farm Rehabilitation Act is administered by a Director who is responsible to the Deputy Minister of Agriculture in Ottawa. The headquarters of the Organization is located at Regina and consists of three main branches; Administrative Services, Agricultural Services and Engineering Services. In addition, there are a Legal Division and a Construction, Equipment and Supply Division, both directly responsible to the Director.

The Administrative Services Branch consists of units providing financial, personnel and office services, as well as an Information Division and a Lands Division.

The Agricultural Services Branch is responsible for all activities associated with the development of farm and community water storage and irrigation projects, and the development and operation of community pastures. Seventeen district offices of the Branch are strategically located throughout the Prairie Provinces to provide advice and assistance to individual farmers. For supervisory and administrative purposes the 70 pastures operated by the Branch are divided into five areas each with a supervisor responsible for pasture operations in his area.

The Engineering Services Branch is responsible for design, soil mechanics investigations, hydraulic, hydrology and air photo analysis and engineering geology studies, as well as all legal and engineering surveys required in the planning of P.F.R.A. projects. Field engineering services are carried out by the Branch through three regional offices located at Regina, Calgary and Winnipeg.



P.F.R.A. display shows of Class "A" and "B" soils in western Canada.





## ADMINISTRATIVE SERVICES BRANCH

The Administrative Services Branch supervises the program of the Information Division, co-ordinates the activities of the Land Division, and assumes overall responsibility for the administrative management of the organization in accordance with various acts, regulations and departmental policies. Two of its major responsibilities concern financial and personnel management. The former includes estimating costs, controlling expenditure and accounting; the latter concerns selection, classification, establishment control and other aspects of personnel management. Office services such as the provision of office equipment and supplies, accommodation, security, inventory maintenance, and a central file registry are also provided for headquarters, regional and district offices.

### Information Division

Activities of the Information Division are covered under three general headings; information, photography and library services.

The information section of the Division prepares reports, publications and articles on P.F.R.A. activities required by the Organization for documentary and public distribution purposes. In addition, this section has become increasingly involved in publicity and public relations activities in the press, radio and TV fields. During 1961 a total of 67 news stories were produced along with six radio tapes and 12 short TV films covering 1,900 newspaper, radio and TV outlets across the three Prairie Provinces.



PFRA display shown at Class "A" and "B" fairs in western Canada.



Publications produced by the Division during 1961 included the P.F.R.A. Annual Report, reports on P.F.R.A. activities for the Annual Report of the Minister of Agriculture and the Canada Year Book, and several brochures and special publications, namely;

- P.F.R.A. - The Story of Conservation on the Prairies
- Progress of Construction - South Saskatchewan River Dam
- Community Pasture Program
- PFRA Water Development Program
- St. Mary Irrigation Project
- Rivers Dam

The section also helped prepare a short brochure on the P.F.R.A. Water Development Program published by the departmental Information Division in Ottawa. Responsibility for the distribution of the above mentioned pamphlets was assumed by the Information Division.

On displays, a fairly extensive program was carried out by the Division during the year. This consisted mainly of setting up and manning two complete displays on P.F.R.A. activities used on the Class "A" and "B" fair circuits throughout the three Prairie Provinces, and constructing three permanent public displays of the South Saskatchewan River Project - two in Saskatoon and one in Regina.

The Photo Section provides photographic services to all branches and divisions of P.F.R.A. and maintains a complete record of photographs in the section for documentary and publicity purposes. During 1961, a total of 4,000 photographs were taken and approximately 45,000 prints produced. Approximately 9,000 feet of black and white movie film and 3,100 feet of color movie film were shot and edited during the year.

Library services are also extended to all branches and divisions of P.F.R.A. including eight field libraries affiliated with the main P.F.R.A. library in Regina. Total accessions processed through the Regina library during 1961 amounted to 663 of which 450 were purchased. Also handled by the library was the circulation of 154 periodical publications to P.F.R.A. headquarters and field offices - 141 were obtained on direct P.F.R.A. subscription and 13 through a loaning arrangement with Ottawa.

#### Land Division

The Land Division is responsible for the acquisition of all land required for P.F.R.A. projects and the administrative management of lands under P.F.R.A. control. These include land acquired or held for soil and water conservation, reclamation and dyking programs. In its work the Land Division works closely with the Legal Division, provincial departments and other public and private agencies.

The major work of the Division involves the appraisal of land for purchase, flood easements, exchange, assessing damage claims, leasing and other purposes associated with P.F.R.A. projects involving land control.

The Land Division also maintains a record of titles, leases and permits, for land held by P. F. R. A. on behalf of Canada.

As of March 31, 1962, this Division was responsible for the following acreages:

Water Conservation and Reclamation Projects

Saskatchewan	30,553.32 acres	
Manitoba	<u>5,336.87</u> "	35,890.19

Community Pastures (titles and leases)

Saskatchewan	1,575,474.55 acres	
Manitoba	<u>284,045.38</u> "	1,859,519.93

Major Irrigation Projects

St. Mary	13,993.87 acres	
Bow River	110,624.80 "	
South Sask. River	<u>52,031.47</u> "	176,650.14

Minor Irrigation Projects

Swift Current	16,075.75 acres	
Val Marie	16,450.07 "	
Maple Creek	<u>11,412.40</u> "	<u>43,938.22</u>
TOTAL ACREAGE		2,115,998.48

The cost of land acquired during the fiscal year 1961-62 amounted to \$606,430.44.



A. R. T. and Division also maintain a record of title, lease and permits for land held by A. R. T. in Canada. A. R. T. is a Crown corporation and has no commercial interest in land. This Division was responsible for the following:

Acres:

Water Conservation and Reclamation Projects	
Manitoba	2,350,000
Saskatchewan	1,500,000
Alberta	1,500,000
British Columbia	1,500,000
Ontario	1,500,000
Quebec	1,500,000
Atlantic	1,500,000

Community Features (Titles and Leases)

A. R. T. has no interest in any of the following titles and leases. The following titles and leases are held by the following:

Major Irrigation Projects

Notified that the following are the titles and leases held by the following:

Minor Irrigation Projects

The following are the titles and leases held by the following:

The cost of land acquired during the fiscal year 1961-62 amounted to \$2,000,000. The following are the titles and leases held by the following:

Land Division

The Land Division is responsible for the acquisition and disposal of land for the A. R. T. and the administration of the land. The Land Division is also responsible for the acquisition and disposal of land for the A. R. T. and the administration of the land.

The Land Division is also responsible for the acquisition and disposal of land for the A. R. T. and the administration of the land.

## CONSTRUCTION, EQUIPMENT and SUPPLY DIVISION

This Division services the diversified activities of other branches of P.F.R.A. Facilities are maintained for repairing equipment and works, and experienced personnel are available for construction and maintenance programs on development projects throughout the P.F.R.A. area.

A wide variety of services were again provided by the Division during 1961. Eighty-four persons were on regular staff and casual help was hired as required. On repair work in the Moose Jaw Trades Shops, 620 jobs were reported: 242 items of work on vehicles, 65 on trailers and 313 on units of mechanical equipment. Also undertaken in the trades shops was the manufacture of over 450 items of equipment including camp trailers, water and feed troughs, concrete forms and hardware.

Field construction crews worked on 128 different projects during the year, including the repair, maintenance and construction of P.F.R.A. water development structures, fireguarding in community pastures, painting buildings and structures, and servicing plumbing, heating and electrical equipment. Transporting equipment and supplies for various operations required 760 separate trips (185,181 miles of travel).

In the purchasing section, the total volume of goods handled amounted to approximately \$500,000. Equipment purchased generally involved the routine replacement of special equipment required for the operation and maintenance of projects. The major item of new equipment was the acquisition of six high head portable pumping units with over 30,000 lineal feet of 6-inch aluminum irrigation pipe and the necessary trailers required for the emergency dugout pumping program. Vehicle replacements were normal although a number of cars used by field personnel are being replaced with more functional models.

The fire prevention and safety program initiated several years ago was also continued, and loss from preventable fires was very low, as were the number and severity of accidents to personnel. In co-operation with the Workmen's Compensation Board, an advanced First Aid Course was conducted at Moose Jaw for supervisors of the field and shop staff. Nearly all the field foremen and supervisors now have first-aid proficiency certificates, and a good training in general safety programs.





Farm dugout being filled with water from melting snow collected from an adjacent shelterbelt of trees.

Ref. No. 22816



Mid-summer on same farm showing dugout filled to capacity.

Ref. No. 23079

## WATER DEVELOPMENT PROGRAM

One of the primary provisions of the Act, which was established in 1935, was to provide engineering and financial assistance for the construction of farm, community and large water storage and irrigation projects in areas where there were special needs.

An unusually heavy program of development in this field was carried out during 1961-62, partly due to the extension of the boundaries of P.F.R.A. to include the northern farming areas of the Prairie Provinces, and partly due to extreme drouth conditions during this period.

### Farm and Community Projects

The three main types of projects built under this program are dugouts, stock watering dams and small irrigation projects. For farm projects, financial and engineering assistance is provided on a self-help basis, with P.F.R.A. supplying all the agricultural and engineering services required and approximately 50 per cent of the cost of construction. On larger projects which serve whole communities, consideration for assistance is based on their individual merit and, due to their size, the major share of cost is borne by P.F.R.A.

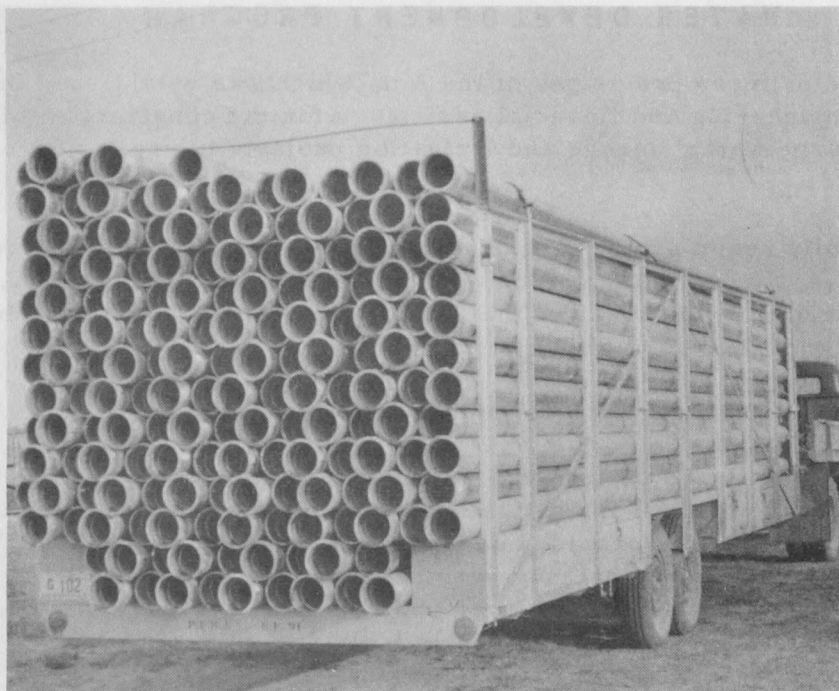


Dry conditions in 1961 required farmers to haul water for livestock and other farm purposes.

Ref. No. 22315

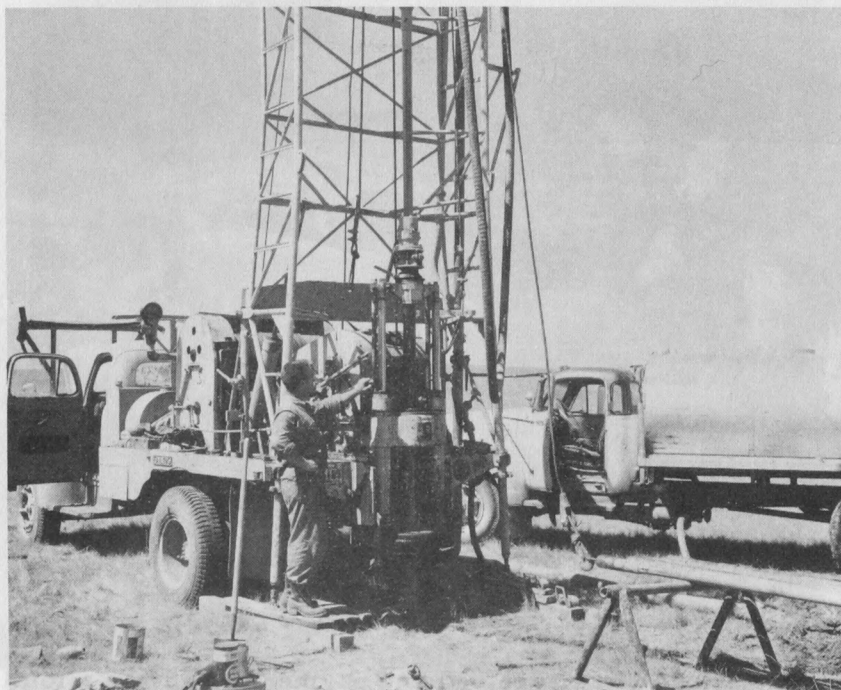
In 1961, applications were received and payments made on a total of 9,650 farm projects - double the construction total reached on any previous year. This included construction of 5,500 farm projects in Saskatchewan, 2,550 in Manitoba and 1,600 in Alberta. In addition, 64 community projects were completed.





Five thousand feet of pipe used in emergency dugout pumping operation with six such units being used by PFRA during 1961.

Ref. No. 22464



Drilling operations being conducted in connection with the Federal-Provincial community well-drilling program.

Ref. No. 22255

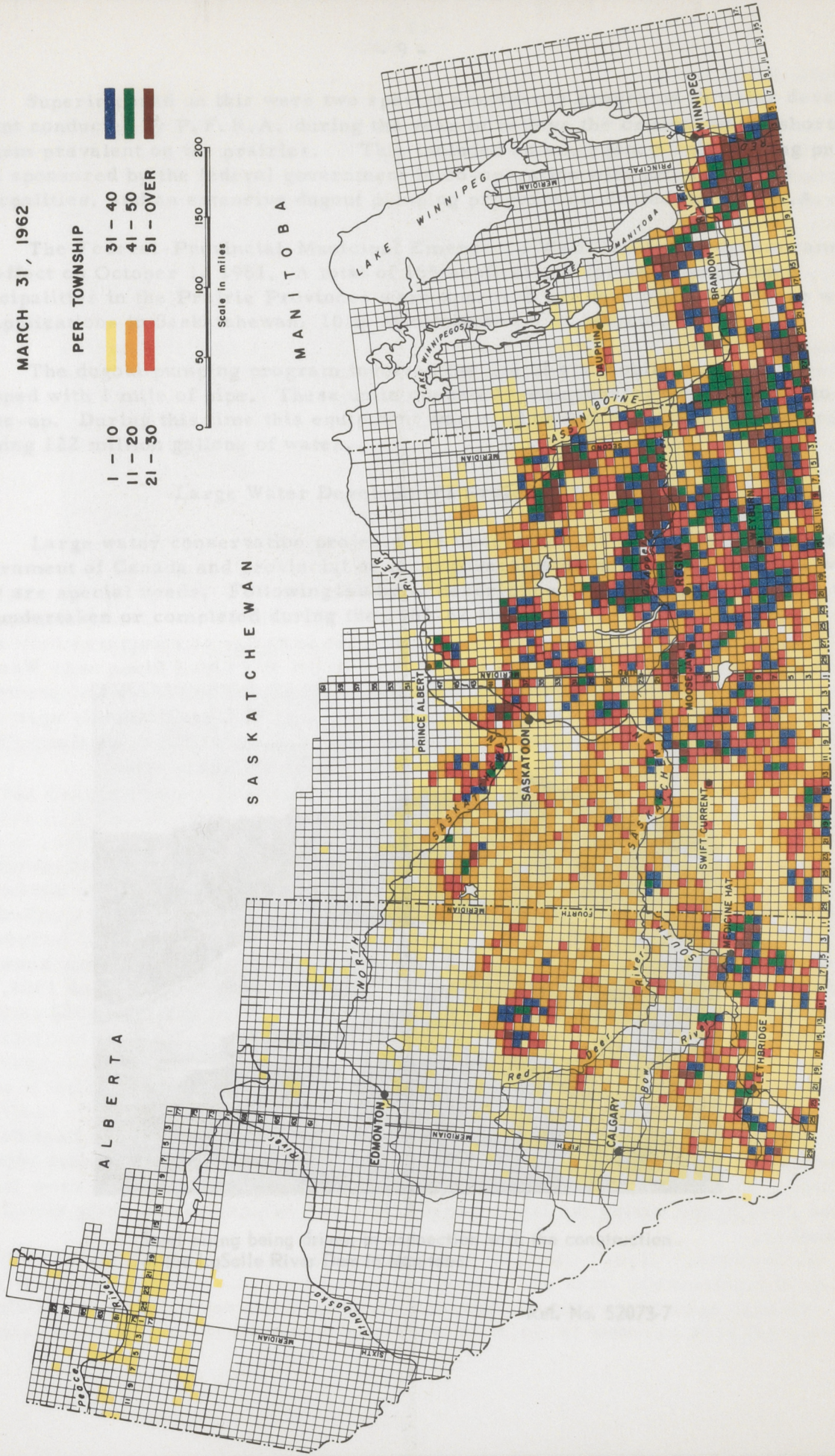
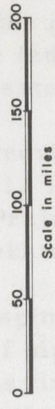
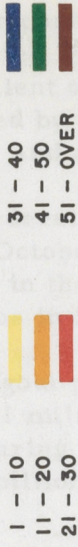


P.F.R.A.

# SMALL WATER PROJECTS

MARCH 31, 1962

PER TOWNSHIP







Superimposed on this were two special emergency programs in water development conducted by P.F.R.A. during the year to relieve the critical water shortage problem prevalent on the prairies. This included an emergency well drilling program sponsored by the federal government in co-operation with provinces and municipalities, and an extensive dugout pumping program conducted by P.F.R.A.

The Federal-Provincial-Municipal Emergency Well Drilling Program came into effect on October 1, 1961. A total of 165 applications for assistance from municipalities in the Prairie Provinces were approved for development. There were 149 applications in Saskatchewan, 10 in Manitoba and 6 in Alberta.

The dugout pumping program involved the use of six mobile units, each equipped with 1 mile of pipe. These units operated continuously from August 1 to freeze-up. During this time this equipment was used on 463 projects and involved pumping 122 million gallons of water.

### Large Water Development Projects

Large water conservation projects are undertaken by agreement between the Government of Canada and provincial or local governments concerned, in areas where there are special needs. Following is a brief description of the projects on which work was undertaken or completed during the 1961-62 fiscal year.



Steel piling being driven in connection with the construction of the LaSalle River Dam in Manitoba.

Ref. No. 52073-7

## LaSalle River Dams

Two new dams of the sheet-pile, rock-fill overflow type were built on the LaSalle River at LaSalle and Starbuck during 1961. The structures will have the function of raising and maintaining water levels on the LaSalle River for stock watering and domestic purposes. Construction of both structures was completed within the year.

## Perry Park Dam

Similar to the LaSalle and Starbuck dams, the Perry Park dam on the Whitemud River at Westbourne, Man., replaces an older Canadian Pacific Railway overflow dam which had fallen into disrepair. The function of the structure will be to maintain the waters in the Whitemud River at a more constant level for the benefit of stockmen and home owners in the district served by the project. Tenders were called for demolition and replacement of the old dam in the spring of 1961 and building of the new structure was completed in late September of the same year.

## Plumas Dam

This structure on Jordan Creek at Plumas, Man., replaces an older P.F.R.A. community water storage project which had to be condemned due to unsatisfactory foundation conditions. The new project is similar in design to structures built on the LaSalle River at LaSalle and Starbuck, and on the Whitemud River near Westbourne, Man. It will improve water level conditions in Jordan Creek and provide a water supply for a 19,000 cubic yard off-channel dugout located slightly upstream from the main works which were constructed by P.F.R.A. at the same time. This work, which began in September 1961, was completed six weeks later.

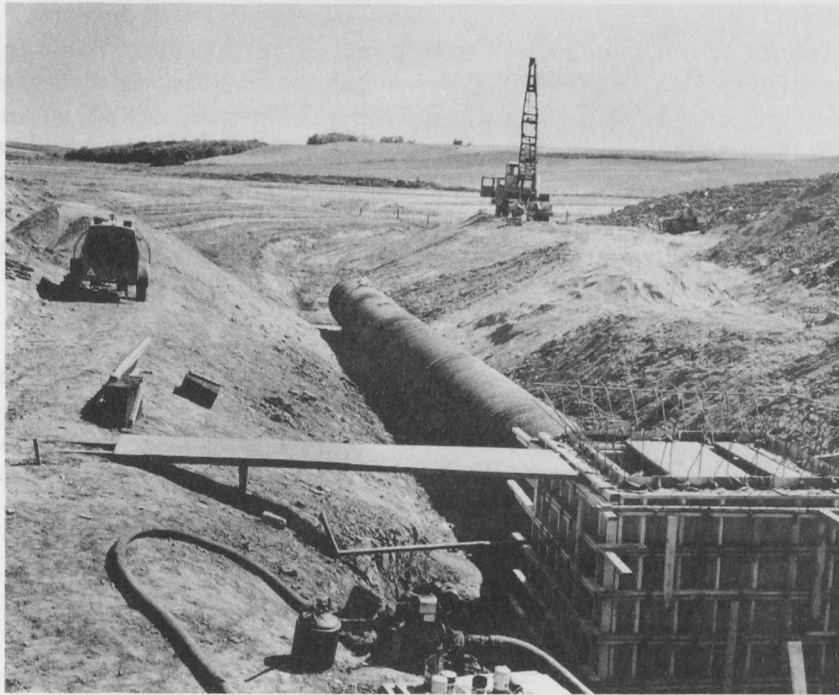
## Deloraine Dam

The Deloraine Dam will create a 1,400 acre-foot water storage reservoir on Turtlehead Creek located six miles southeast of Deloraine, Man., on the northern slopes of Turtle Mountain. Tenders for construction of this project were called by P.F.R.A. in October 1961 and the contract awarded shortly thereafter. Included in the contract was provision for clearing brush from the proposed reservoir area. This work commenced immediately and was completed early in December 1961. Actual construction of the project itself will commence in the spring of 1962 as soon as ground conditions will permit.

## Boissevain Water Storage Project

Owing to repeated failure of the earth emergency spillway at the East Dam of the Boissevain Project, it was decided in 1961 to install a new drop-inlet-pipe spillway. This job, which was carried out by a P.F.R.A. construction crew from Moose Jaw, began during the latter days of July and was completed early in September.





Drop inlet structure under construction at site of Boissevain Dam in Manitoba.

Ref. No. 52077-8

#### Oungre Community Project

The Oungre Project is a community water storage structure with a capacity of 325 acre feet, constructed on a tributary to Long Creek two miles northwest of the Village of Oungre, Sask. The project, which consists of a 25-foot earthfill embankment, a drop-inlet spillway, a riparian outlet and emergency spillway, will be used by the municipality within which the reservoir is located, for stock watering and farm water supply.

#### Birch Hills Community Storage Project

This project is a giant dugout, the largest ever constructed by P.F.R.A., located adjacent to Cromarty Creek about two miles west of the Town of Birch Hills, Sask. The project, which possesses a storage capacity designed for 125 acre feet of water, was built to provide a dependable source of water for that area. Water will be obtained via a 4,000-foot diversion canal from Cromarty Creek. Construction of the project commenced in July 1961, and was completed in September of the same year.

#### Cleland Dam

The Cleland Dam is located on a tributary of Eaglehill Creek, approximately 10 miles north and two miles west of Rosetown, Sask. The dam, possessing a drop-inlet spillway, riparian outlet and emergency spillway, provides a storage capacity of 210 acre feet of water. It was constructed for the R.M. of Marriott #317 for stock



Large community dugout under construction at Birch Hills,  
Saskatchewan.

Ref. No. 22525-3

watering, irrigation and farm water supply. Construction of the project commenced in August 1961 and was completed in December of the same year.

#### Antler Creek Project (Carnduff Dam)

The Carnduff Dam, completed in January 1962, is a 790 acre-foot water storage project constructed by P.F.R.A. for the R.M. of Mount Pleasant. It will be used for stock watering and farm water supply. Located on Antler Creek approximately four miles northwest of Carnduff, Sask., the project consists of an earth dam and concrete chute-type spillway with stop log control.

#### West Poplar River Development Conservation Reservoir No. 1

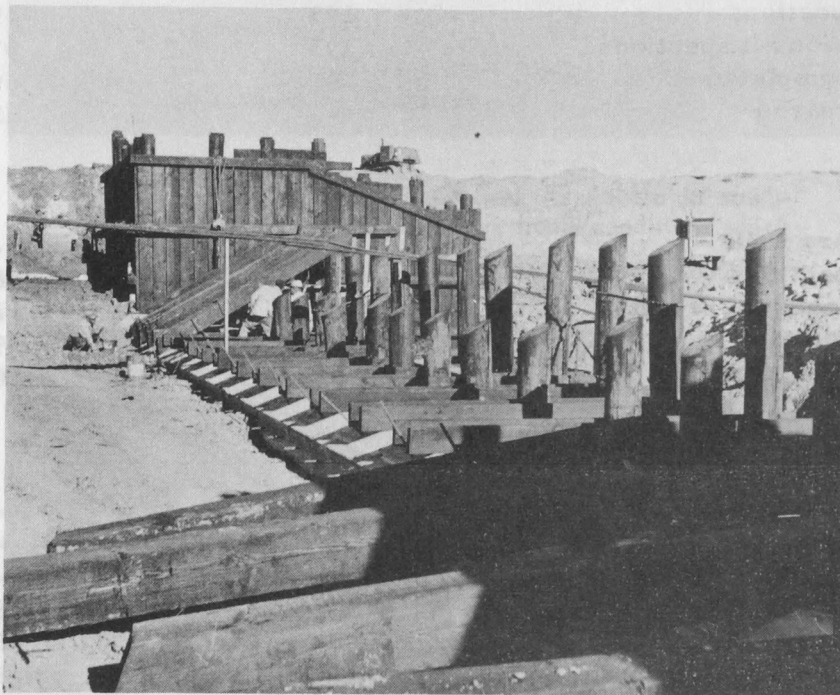
The West Poplar Dam is located on a branch of the West Poplar River about 12 miles southwest of Wood Mountain, Sask. Present construction plans call for increasing the size of a smaller P.F.R.A. structure built in 1957, to a 1,000 acre-foot storage capacity, and provide for a drop-inlet spillway and new riparian outlet. The project, which is being constructed for the Province of Saskatchewan is primarily for irrigation. Construction was started late in 1961, using P.F.R.A. forces, in order to take advantage of dry foundation conditions existing at that time. It is to be completed in 1962.

## Nashlyn Irrigation Project

This project involved the enlargement and renovation of an existing irrigation system to provide water for some 1,000 acres of potentially irrigable land near Consul, Sask. Included in this work during 1961 was the construction of a diversion weir on Battle Creek, and reconstruction of approximately 4.2 miles of diversion canal to the irrigation project reservoir. A new canal, to serve the land to be irrigated, was also built complete with check structures, turnouts for irrigation, and bridges or culvert road-crossings as required.

## Parr-Castor Project

Construction work on this project in 1961 involved the installation of a new drop-inlet type spillway to replace an older eroded concrete chute structure which was being undermined by water. This work was started late in the fall of 1961 and completed early the following spring.



Timber work in progress in connection with the construction of a rock-filled timber crib diversion weir on the Nashlyn Irrigation Project in southwestern Saskatchewan.

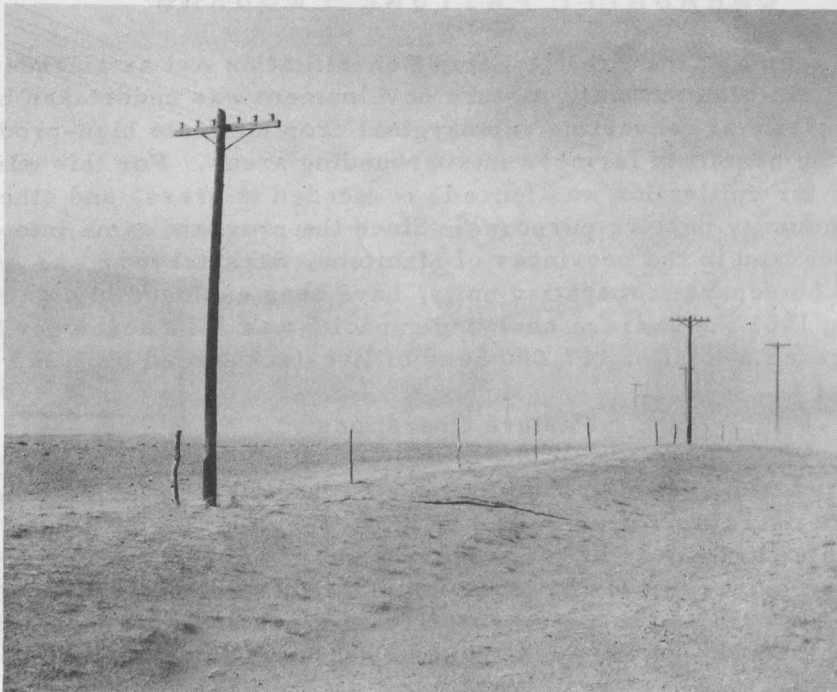
Ref. No. 22423-5



# Technical Assistance

In addition to financial assistance provided for "farm" and "community" projects, the following free field services were supplied by the Water Development Branch in 1961-62.

	<u>Agricultural Services</u>	<u>Engineering Services</u>
<u>Dugouts</u>		
Preliminary calls	2,317	-
Final inspections	10,351	-
Miscellaneous inspections	1,189	-
<u>Stock Watering Dams</u>		
Preliminary calls	480	-
Final inspections	193	452
Miscellaneous inspections	293	970
Surveys completed	-	694
Plans prepared	-	630
<u>Irrigation</u>		
Preliminary calls	473	-
Final inspections	158	284
Miscellaneous inspections	263	1,125
Surveys completed	-	599
Plans prepared	-	481
<u>Community Projects</u>		
Preliminary calls	140	-
Final inspections	49	-
Miscellaneous inspections	190	-
Projects investigated	-	180
Projects built	-	61
Surveys & Plans prepared	-	53
Maintenance	-	72
Sub Totals	16,096	5,601
TOTAL		<u>21,697</u>



Soil drifting on cultivated land near Assiniboia in southwestern Saskatchewan resulting from drouth conditions which prevailed during 1961.

Ref. No. 21992



Cutting and baling sparse oat crop for feed on farm near Carlyle in southeastern Saskatchewan during drouth of 1961.

Ref. No. 22321

## COMMUNITY PASTURE PROGRAM

Under the terms of the Prairie Farm Rehabilitation Act as amended in 1937, an extensive program of community pasture development was undertaken by P.F.R.A. It was aimed primarily at converting submarginal crop land into high-producing grazing land for the benefit of farmers in surrounding areas. For this purpose, land proven unsuitable for cultivation was fenced, re-seeded to grass, and otherwise improved for community pasture purposes. Since the program came into effect, 2,097,544 acres of land in the provinces of Manitoba, Saskatchewan and Alberta, incorporated into 68 separate operating units, have been enclosed in community pastures. During 1961 the average carrying capacity was 14.2 acres per head and these pastures grazed a total of 147,080 head of livestock owned by 7,147 patrons.

### Pasture Operations

Extreme and widespread drouth conditions, the worst experienced since P.F.R.A. pasture operations commenced in 1937, resulted in a difficult year. The value of an adequate carry-over of grass from former years was obvious. This carry-over enabled most pastures to carry normal numbers of livestock for most of the grazing season. In a few cases, shortage of grass and water made it necessary to terminate the grazing season somewhat earlier than usual.



One of the more important headwater storage reservoirs constructed by PFRA in southwestern Saskatchewan to assure dependable water supplies for livestock and irrigation in that area.

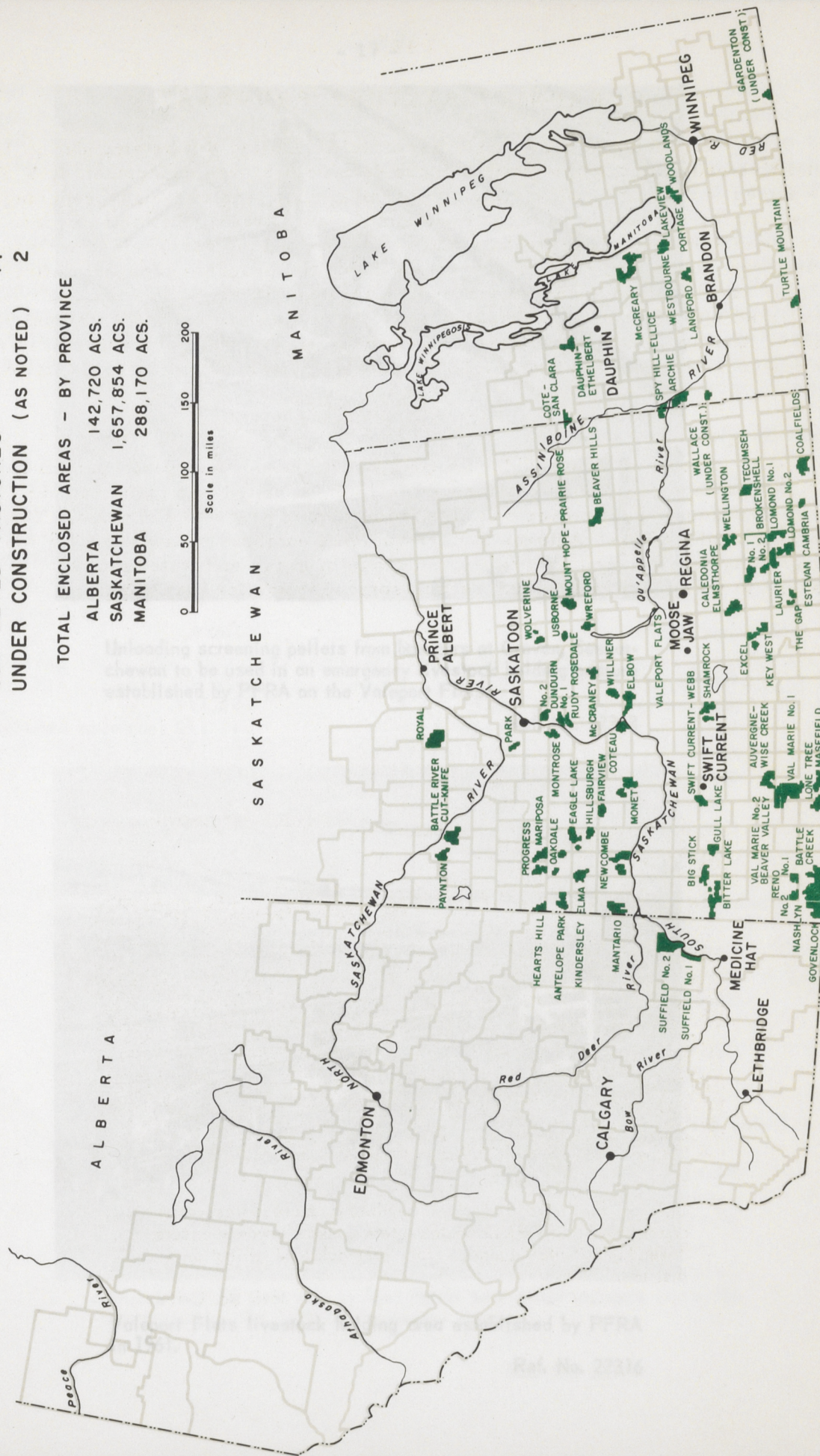
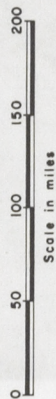
Ref. No. C-133



COMPLETED PASTURES	71
UNDER CONSTRUCTION (AS NOTED)	2

TOTAL ENCLOSED AREAS - BY PROVINCE

ALBERTA	142,720	ACS.
SASKATCHEWAN	1,657,854	ACS.
MANITOBA	288,170	ACS.





# COMMUNITY PASTURE PROGRAM

2021 JE HCRAM - 23RUTSAP YTIUUMMOO

23RUTSAP QETALPMO  
NOTCHUTSICOD REGIU

23RUTSAP YTIUUMMOO - 23RUTSAP YTIUUMMOO

23RUTSAP YTIUUMMOO  
23RUTSAP YTIUUMMOO  
23RUTSAP YTIUUMMOO

W 3 H O T I K S A S



One of the most important landowner projects resulting from the C-133 in southwestern Saskatchewan is to create dependent water supplies for livestock and irrigation in that area.

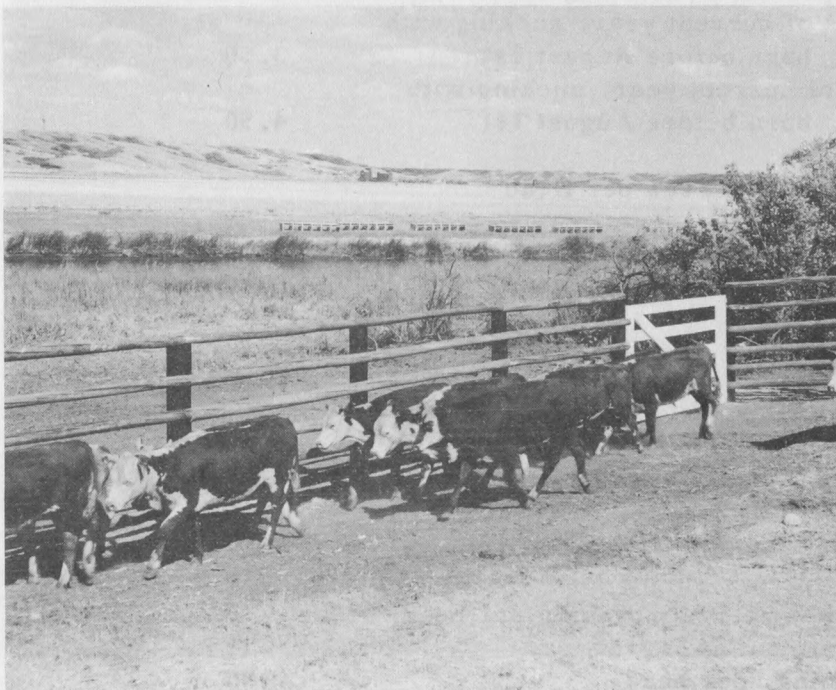
Ref. No. C-133





Unloading screening pellets from box cars at Craven, Saskatchewan to be used in an emergency livestock holding pasture established by PFRA on the Valeport Flats.

Ref. No. 22318



Valeport Flats livestock holding area established by PFRA in 1961.

Ref. No. 22316

Three new pastures commenced operations in 1961. Two pastures in the Turtle Mountain and Dauphin-Ethelbert areas of Manitoba were filled to capacity with a total of 2,620 head of cattle. In Alberta a pasture was established on the Defence Research area near Suffield. This pasture contains 142,720 acres and handled over 8,000 head of cattle from the driest area of Western Canada.

An emergency holding area was established on the Valeport Flats near Craven, Sask., in July 1961 owing to an acute shortage of water and grass in the district. This project maintained over 1,800 head of cattle during the late summer and fall months on a ration of refuse screening pellets. The value of such pellets for livestock maintenance was demonstrated. It was evident that these pellets, with limited grazing or supplemental roughage, provided a satisfactory emergency ration for cows and calves.

#### Pasture Services

The Prairie Farm Rehabilitation Administration establishes the carrying capacity of each pasture annually. With this figure as a guide, pasture advisory committees allocate pasturage in accordance with policies established by P.F.R.A., setting the maximum number of stock per patron allowable under local conditions. Following is the present rate schedule for pasture services effective during 1961.

Grazing Rates	Dollars
Cattle per head per day	.03 1/2
Horses per head per day	.04 1/2
Sheep per head per month	.11 1/2 (provide own herder)
Cows per head (breeding service)	4.00
Calves of current year, sucking with dam, born before August 1st	3.50
Colts of current year, sucking with dam, born before August 1st	4.50

#### Minimum Grazing Fees per Head

Cattle	4.00
Horses	5.00
Sheep	.40

(No charge is levied on colts and calves born in pasture after July 31 of current year to end of summer season)

#### Rates for Vaccine and Other Services

Blackleg, hemmorrhagic and mixed vaccine per single dose	.15
Warble & hornfly spraying per head, (treatment at corral)	.15
Dehorning, per head	.50
Mineral supplement, per head	.35



Castration: Cattle under 6 mos, per head	1.00
Cattle over 6 mos, per head	2.00
Encephalomyelitis and special vaccines	
at cost	

(All hay must be put up on a share basis, such to be governed by quality and quantity available)

Where extra wood in community pastures is available, the following rates will apply, subject to approval of the pasture manager and confirmation from head office.

Dry wood, per cord	.50
Green wood, per cord	1.00

### Haying and Regrassing

Over 4,000 tons of hay and green feed were harvested on community pastures. In some instances adjacent farmers put up part of this hay on a share basis. Eight hundred tons of hay were harvested at the Suffield Experimental Station in Alberta. It was allocated to 130 stockmen and sold at cost to alleviate the fodder shortage in southeastern Alberta.

During 1961, four thousand and eighty-six acres were regrassed: 330 acres of clover, 293 acres of brome and crested wheat grass, and 3,463 acres of mixed grasses.



Trucks waiting their turn to load cattle during fall roundup operations on the Suffield Community Pasture.

## Fires and Fire Protection

Due to the prolonged dry spell the fire hazard was greater than usual. Two accidental fires in the Wolverine and Coalfields pastures resulted in the loss of 10,000 acres of grass. Other fires started by lightning occurred in several prairie pastures but these were brought under control with little damage being done. In the parkland areas a number of bush fires resulted in minor losses of grazing.

Motorized units working out of Moose Jaw maintained 794 miles of fire-guard and built 24 miles of road which also serves as a fireguard. Pasture headquarters are equipped with power spraying units for added protection against fire.

## Grasshopper Control

Grasshopper outbreaks in pastures were particularly severe in southeastern and west-central Saskatchewan. The new insecticide 'Sevin' was used on 10,000 acres in these areas with satisfactory results.

## Breeding Service

The Prairie Farm Rehabilitation Administration purchases and maintains purebred beef-breed bulls for service in community pastures for the benefit of patrons. During 1961, six hundred and ninety-nine Hereford, 71 Shorthorn, 41 Angus, and 20 Charolais bulls were supplied by P.F.R.A. and 409 were rented from patrons under this program. Also, 195 Hereford and 25 Aberdeen Angus bulls were purchased to provide replacements in following years.

Pastures are charged \$40.00 per bull annually - a rate based on the cost of the bull, length of service and salvage value. Under this program 40,867 cows were serviced during the grazing season. Nine hundred and seventy-nine bulls were wintered on the various pastures and at the Archie and Bitter Lake bull stations, for use in 1962.

Artificial insemination was also used at the Kindersley-Elma and Laurier pastures for breeding purposes. At the Kindersley-Elma pasture the program was handled through the Teo Lake Artificial Breeding Co-op, with 267 cows being bred. At the Laurier pasture the Weyburn Artificial Breeding Co-op serviced 710 cows during a six-week breeding season. Conception rates were satisfactory.

## Livestock Losses

There were no serious outbreaks of disease in community pastures in 1961. Due to the extreme heat and high evaporation, water in one slough at Tecumseh Pasture became excessively saline and 28 head of stock died from salinity poisoning. In two pastures in Manitoba, water was also suspected in the loss of 16 head, mostly calves. All cattle handled in community pastures are subject to federal 'animal health' regulations and local municipal bylaws in connection with tuberculosis and brucellosis eradication programs.



## Livestock Insurance

Thirty-eight pastures have mutual insurance and 30 pastures have no insurance. Of the 748 head of stock reported missing or dead, approximately 0.5 percent of the total livestock handled during the season, 453 were eligible for insurance. The accumulated insurance reserves at March 1, 1962, totalled \$65,852.77.

## Pasture Construction

Eight construction crews were engaged in the construction of new projects during the year, including the Suffield, Gardenton, Wallace, Foam Lake and Kelvington pastures. As a result of this work 158 miles of fence were erected to enclose an additional 158,920 acres. Three complete sets of headquarters buildings located at Turtle Mountain, Dauphin-Ethelbert and Oakdale pastures were constructed. It is anticipated that two of the four new projects currently under construction will go into operation in 1962: Gardenton (14,160 acres near Vita, Man.); and Wallace (10,500 acres near Virden, Man.). The Foam Lake project near Margo, Sask., and the Kelvington project near Kelvington, Sask., will go into operation in 1963.



Fencing crew erecting portion of 47 miles of fence required to enclose newly established Suffield Community Pasture in Alberta.

Ref. No. 22257

Due to the increasing demand brought about by drouth conditions, and the general increase and growth in the number and size of the pastures, an additional water development crew was organized. This activity is outlined in the following table.

Summary of Pasture Construction Activities - 1961-1962 Season

Particulars	Projects Completed in 1961	Repair Work Completed in 1961	Total to March 31, 1962.
Fencing	158 3/4	55	4,867
Corrals	8	9	171
Pasture Manager Dwellings	3	2	63
Riders' Cabins	0	0	35
Barns	2	2	63
Garages	3	0	64
Bull Sheds	2	2	60
Others (Granaries, oil sheds, chicken coops, pump houses, etc)	8	2	188
Windmills	51	7	482
Wells	55	69	439
Springs	18	9	212
Dams	6	3	284
Dugouts	78	57	793
Total number of acres enclosed as at March 31, 1961 . . . . .			1,933,834
Total number of acres enclosed 1961 construction season . . . . .			158,920
Total number of acres enclosed as at March 31, 1962 . . . . .			2,092,754

Pasture Improvement

Although the extremely hot and dry weather conditions which existed during the summer of 1961 took its toll on dry-land grass production, it furnished ideal growing conditions where irrigation could be applied, or where soil moisture was sufficient from previous years of irrigation or flooding. Large areas which had been treated by contour furrowing in the Val Marie pasture increased grass production over untreated areas. Other water conservation measures such as tooth pitting, showed some increase in grass production over untreated areas.

The warm, dry spring permitted regrassing operations to be started on April 5 and completed by May 15. All fall seeding had to be cancelled because of depleted soil moisture conditions caused by the intense drouth.

Improvement work during 1961 was concentrated on developing flood irrigation projects started in previous years, surveys for future development, grass



and stock water surveys, and brush control. Other work included the construction of stock watering facilities and fireguards.

Three hundred and sixty acres of flood-irrigated pasture were developed in the Lone Tree pasture; 40 acres of flood-irrigated forage land were developed in the Auvergne-Wise Creek pasture; and a 100-acre drainage and flood scheme was completed in the Royal pasture. Eight hundred acres of sweet clover were seeded for soil conditioning on flood projects in the Battle Creek and Reno #1 pastures, and 300 acres were regrassed in the Val Marie pasture. An additional 22 stock watering facilities were constructed and 15 stock watering dams repaired. For brush control, three thousand acres were sprayed with herbicides by ground equipment and 200 acres by aircraft. Production of fodder on flood irrigation projects amounted to 1,535 tons.

## REHABILITATION and RESETTLEMENT

In addition to the amendment to the Act that provided for the development of community pastures, provision was also made for resettling and rehabilitating farmers moved from areas proposed for pasture development. This was achieved without moving farmers out of the area, wherever it was possible. In other instances, it was necessary to move farmers to other districts and rehabilitate them on land more suitable for dry-land farming, or on irrigation projects developed specifically for the purpose. Since the program came into being in 1935, approximately 5,000 families have been rehabilitated.

Irrigation projects which P.F.R.A. built and continues to operate, are found both in southwestern Saskatchewan and southern Alberta.



Profusion of bales denotes good hay crop produced on irrigated land at Rush Lake, Saskatchewan despite drouth conditions prevailing during 1961.

Ref. No. 22223-3

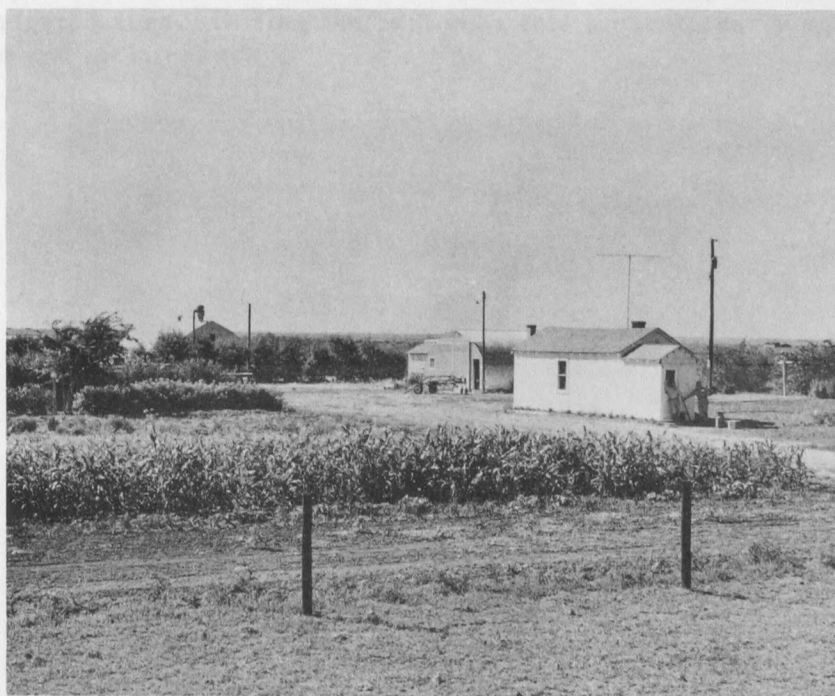
In Saskatchewan these are located at Val Marie, West Val Marie, Consul, Eastend, Maple Creek and Swift Current. In these six projects approximately 35,000 acres of irrigable land have been made available to farmers and ranchers in surrounding districts for the production of assured livestock feed supplies. During 1961, twenty thousand acres of this land were irrigated, producing between 50,000 and 55,000 tons of hay for the 500 farmers utilizing the projects. As a result of this irrigation, sufficient hay was produced to maintain the 35,000 to 40,000 head of breeding stock carried by patrons in the area with minor exceptions, in spite of extremely dry weather conditions.



In the Hays resettlement district of the Bow River project there are now 152 farmers and no further movement of settlers is anticipated. Efforts during the past year have been concentrated mainly on consolidating units and extending assistance to farmers to hasten their rehabilitation.

Assistance offered by the Government of Canada in this regard is provided in the form of special loans for housing, fencing, and the purchase of livestock. Under this program, individual loans of \$2,000 for material to construct dwellings, \$1,000 to assist in the purchase of breeding stock, and \$750 for fencing material, were made available to new settlers. A summary of loans made under this program to December 31, 1961, was as follows:

Housing:	50 loans approved . . . . .	\$91,050.02
	Expenditure to December 31/61	81,955.72
Fencing:	38 loans approved . . . . .	21,310.94
	Expenditure to December 31/61	12,917.26
Livestock:	36 loans approved . . . . .	36,000.00
	Expenditure to December 31/61	30,010.80



Resettled on the Bow River Irrigation Project near Hays in 1954, this farmer is now becoming well established on the new land provided.

Ref. No. 20465

In connection with the program to consolidate units during 1961, eighteen farmers received additional land to increase their total acreage, eight farmers transferred their interest from one additional parcel to a new parcel, four leases on additional parcels were cancelled, and three farmers discontinued farming.





## MAJOR IRRIGATION and RECLAMATION PROJECTS

Major irrigation and reclamation projects on which work was carried out during the year, are reviewed in the following.

### St. Mary Irrigation Project

The St. Mary Irrigation Project involves the construction of works to irrigate approximately 500,000 acres in southern Alberta, utilizing Canada's share of the water resources in three major important streams - the St. Mary, Belly and Waterton Rivers.

Under an agreement between the Government of Canada and the Province of Alberta, construction was started in 1946 with Canada assuming responsibility for the engineering and supervision of the entire project and the cost of construction of the main storage and diversion works and connecting canals. Alberta, in turn, agreed to provide financing for the construction of the distribution systems and agricultural development and settlement of the project. To cover the cost of irrigation development on the project, the province collects from the farmers, an amount equal to \$10.00 per irrigable acre. For operation and maintenance of the main reservoirs and connecting canals, Canada charges an amount not to exceed 25 cents per acre foot for water delivered to the Province of Alberta for distribution to the irrigated area. During the past year this amount nearly equalled the cost of operation and maintenance.



Water issuing from outlet of river diversion tunnel on the Waterton Dam currently under construction in southwestern Alberta.

Ref. No. 22098

Construction of the main works, with the exception of the Waterton Dam currently under development, and construction of the Waterton to Belly River Diversion Canal, is now completed. Distribution works have been constructed and are now in operation to serve a total of 304,000 acres of which 120,000 acres were irrigated prior to 1946.

Capital funds expended by the two Governments to March 31, 1962 are approximately:

Government of Canada (P.F.R.A.)	\$24,355,000
Government of Alberta	19,234,000

#### Engineering and Construction

Design work continued during 1961 on the Waterton Spillway and other appurtenant structures required for the Waterton Dam and diversion works. Surveys, investigations and planning were also continued on portions of the irrigation distribution system remaining to be built.

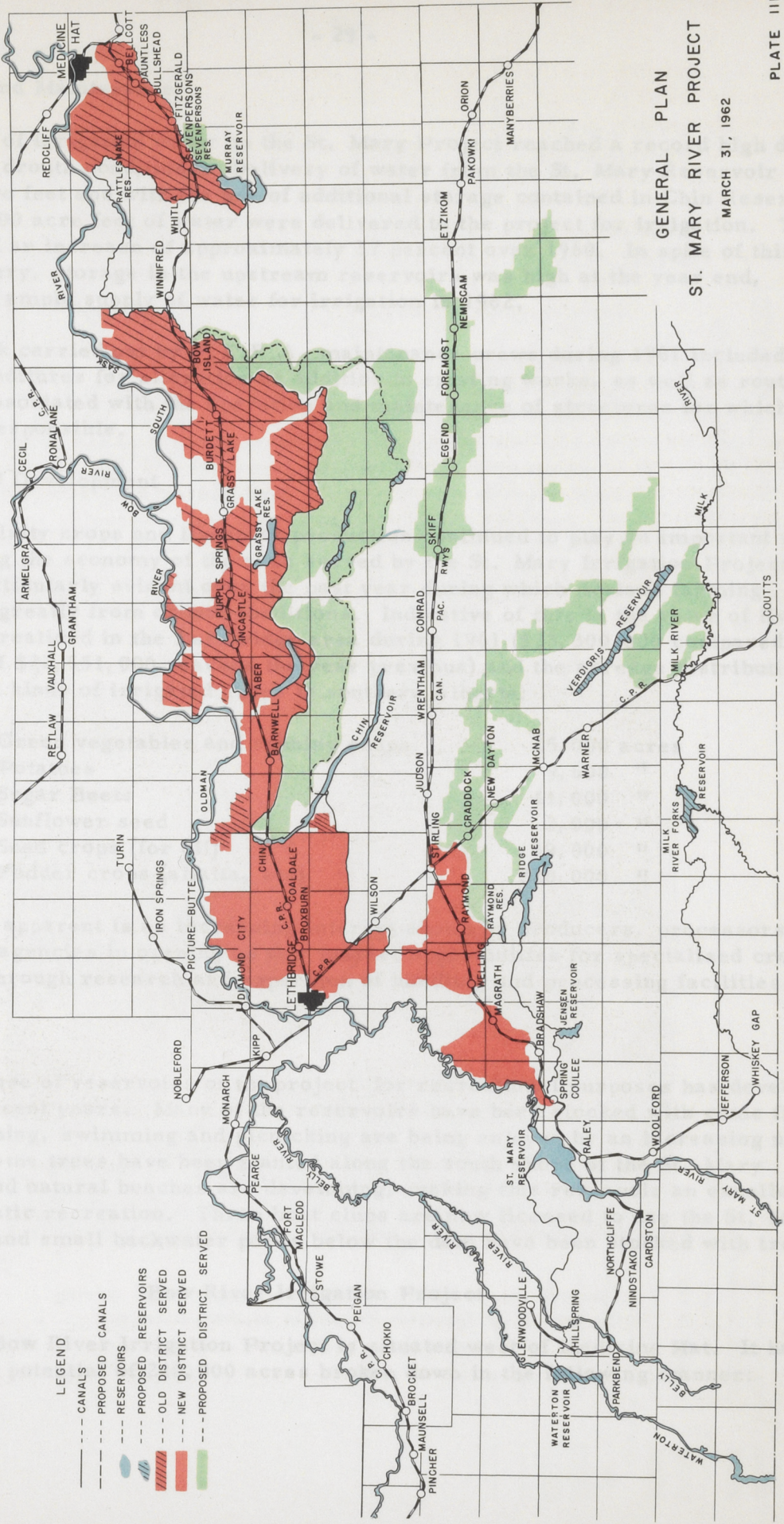


Aerial view of Waterton Dam in southwestern Alberta, showing progress in construction to June 1961.

Ref. No. 22087

On the Waterton Dam, construction activity centered around the construction of the main embankment. This work, which started late in 1960, progressed favorably during 1961 and was reported approximately 50 per cent completed by the end of the year.





- LEGEND
- CANALS
  - PROPOSED CANALS
  - RESERVOIRS
  - PROPOSED RESERVOIRS
  - OLD DISTRICT SERVED
  - NEW DISTRICT SERVED
  - PROPOSED DISTRICT SERVED

GENERAL PLAN  
ST. MARY RIVER PROJECT  
MARCH 31, 1962



Continuation of Canadian work with the Government of the Republic of China. Currently, the development and construction of the Hsiao Shing River Irrigation Canal, is now completed. Distribution work has been continued and the canal is expected to serve a total of 334,000 acres. 10,000 acres were allocated to 1946.

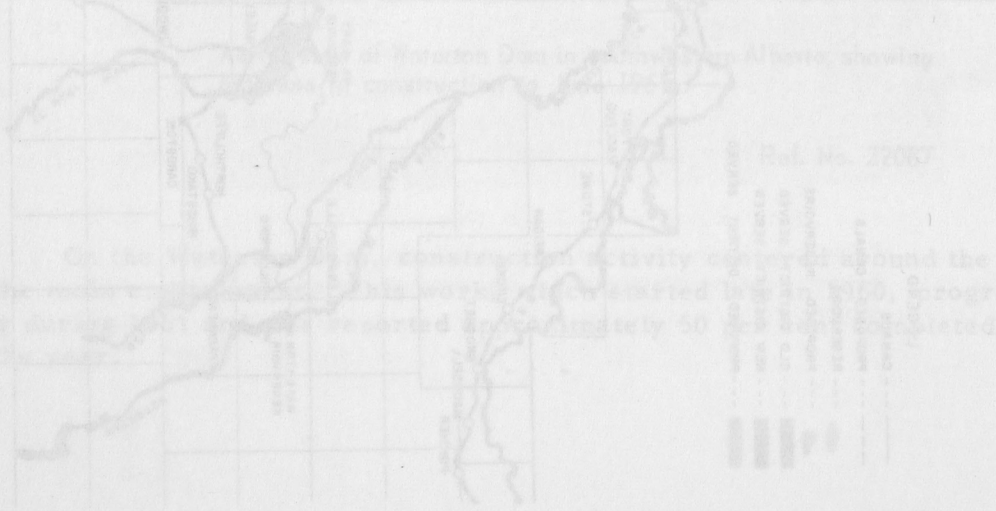
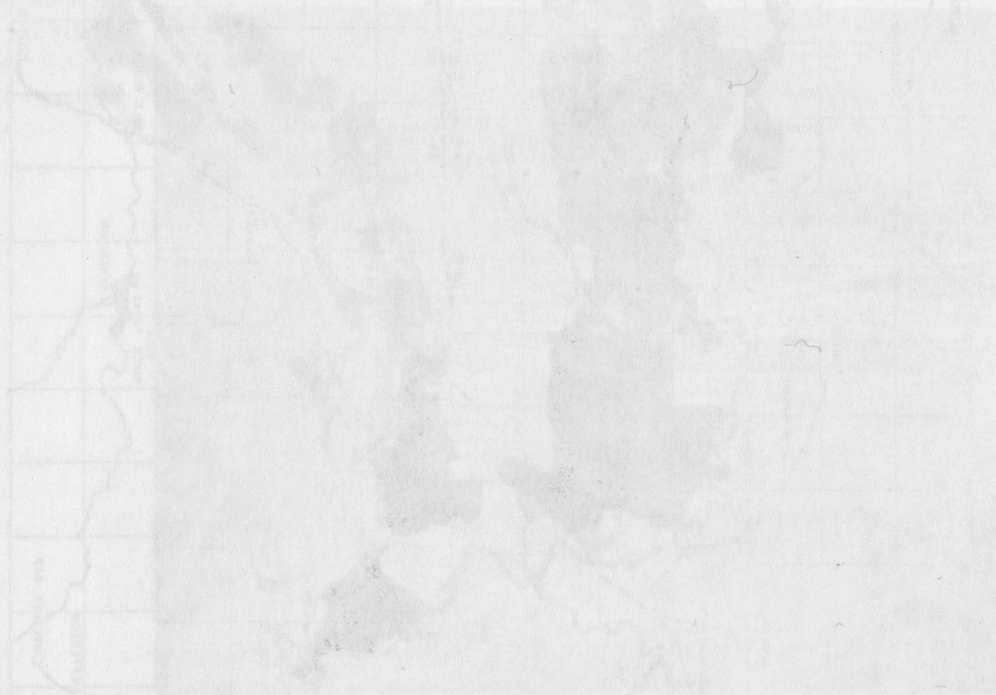
Canada's share of the two Governments to March 31, 1946 are approximately:

Government of Canada (C.R.A.)

Government of Alberta

Approximate Work Completed:

Work was continued during the year on the Hsiao Shing River and other irrigation canals. The work was carried out by the Canadian and Chinese Governments. The work was carried out by the Canadian and Chinese Governments. The work was carried out by the Canadian and Chinese Governments.



Ref. No. 77067

On the Hsiao Shing River, construction activity continued around the construction of the main canal. The work was carried out by the Canadian and Chinese Governments. The work was carried out by the Canadian and Chinese Governments. The work was carried out by the Canadian and Chinese Governments.



## Operation and Maintenance

Use of irrigation water on the St. Mary Project reached a record high during 1961 due to drouth conditions. Delivery of water from the St. Mary Reservoir was 415,000 acre feet and with the use of additional storage contained in Chin Reservoir, about 478,000 acre feet of water were delivered to the project for irrigation. This represented an increase of approximately 37 percent over 1960. In spite of this heavy delivery, storage in the upstream reservoirs was high at the year end, ensuring an ample supply of water for irrigation in 1962.

Work carried out by P.F.R.A. maintenance crews during 1961 included only minor expenditures for alteration or addition to existing works, as well as routine activities associated with the operation and maintenance of structures for which Canada is responsible.

## Agricultural Development

Specialty crops and livestock production continued to play an important role in stabilizing the economy of the area served by the St. Mary Irrigation Project. This was particularly evident over the past year during which dryland farming suffered so greatly from drouth conditions. Indicative of this is the value of livestock sales realized in the Lethbridge area during 1961 (\$25,300,000 compared with sales of \$22,551,000 reached the year previous) and the acreage distribution for different kinds of irrigated crops in southern Alberta:

Green vegetables and canning crops	15,000 acres
Potatoes	9,600 "
Sugar Beets	41,000 "
Sunflower seed	2,000 "
Seed crops (for oil)	39,000 "
Fodder crops (alfalfa, etc)	220,000 "

Also apparent is an increasing interest shown by producers, processors and government agencies in opening up new market opportunities for specialized crop production through research and expansion of handling and processing facilities.

## Recreation

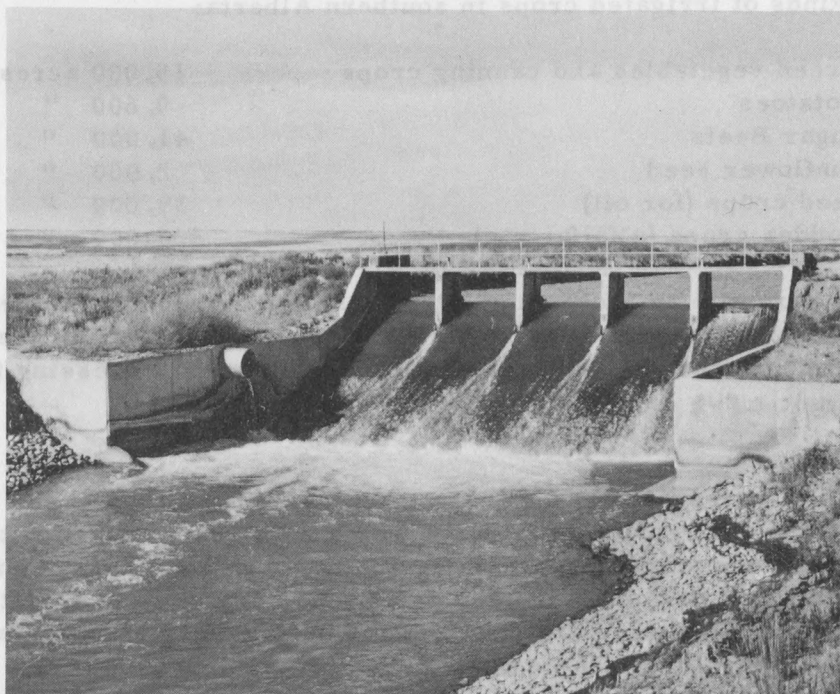
The use of reservoirs on the project for recreational purposes has developed rapidly in recent years. Many of the reservoirs have been stocked with game fish. Boating, fishing, swimming and picnicking are being enjoyed by an increasing number of people. Some trees have been planted along the south shore of the St. Mary Reservoir and natural beaches are developing, making this reservoir an excellent spot for aquatic recreation. Three boat clubs are now licensed to use the St. Mary Reservoir, and small backwater ponds below the dam have been stocked with trout.

## Bow River Irrigation Project

The Bow River Irrigation Project is situated west of Medicine Hat. It has an irrigation potential of 240,000 acres broken down in the following manner:

West Block	25,000 acres
Central Block -	
Vauxhall	63,000 "
Hays	27,000 "
East Block	120,000 "
Blackfoot Indian Irrig. District	<u>5,000 "</u>
Total irrigable acreage	240,000 "

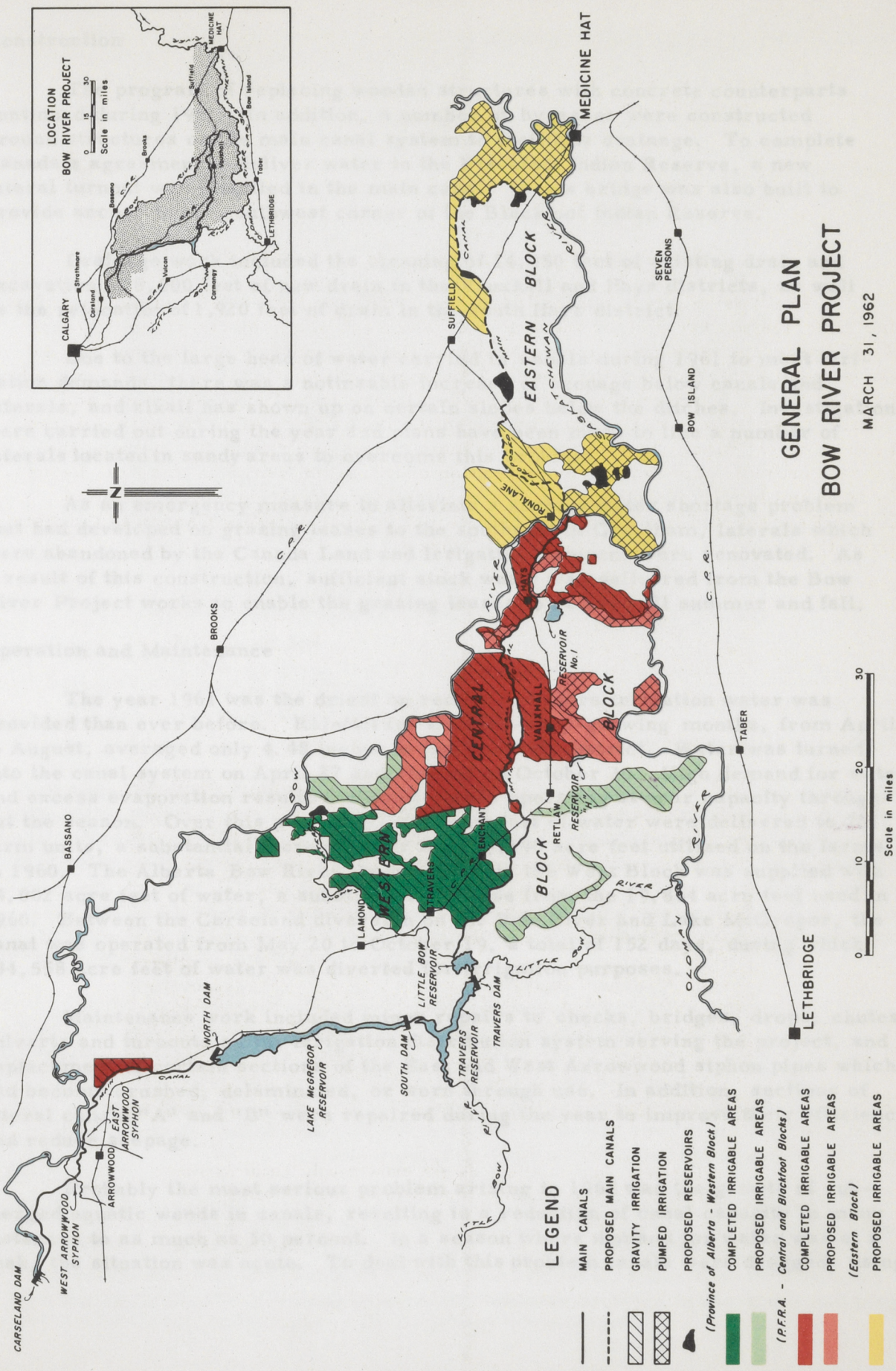
The West Block is controlled by the Province of Alberta, and the Blackfoot Indian Irrigation District by the Indians. The East Block, north of the Bow and South Saskatchewan rivers toward Medicine Hat, is owned by Alberta but has not as yet been brought under the ditch. To provide suitable land for settlers moved by P. F. R. A. , in accordance with the federal government's resettlement and rehabilitation policies, Canada purchased the land and existing irrigation works in the Central Block, together with the main canals and reservoirs serving the overall project. Renovation and extension of irrigation works in this area began in 1950 and is now completed. Water required for irrigation in the Blackfoot Indian Reserve and West Block of the project is wholesaled by Canada to the districts, from the project's main water-supply works.



Concrete drop structure on the main supply canal serving the Bow River Irrigation Project in southern Alberta.

Ref. No. 16764

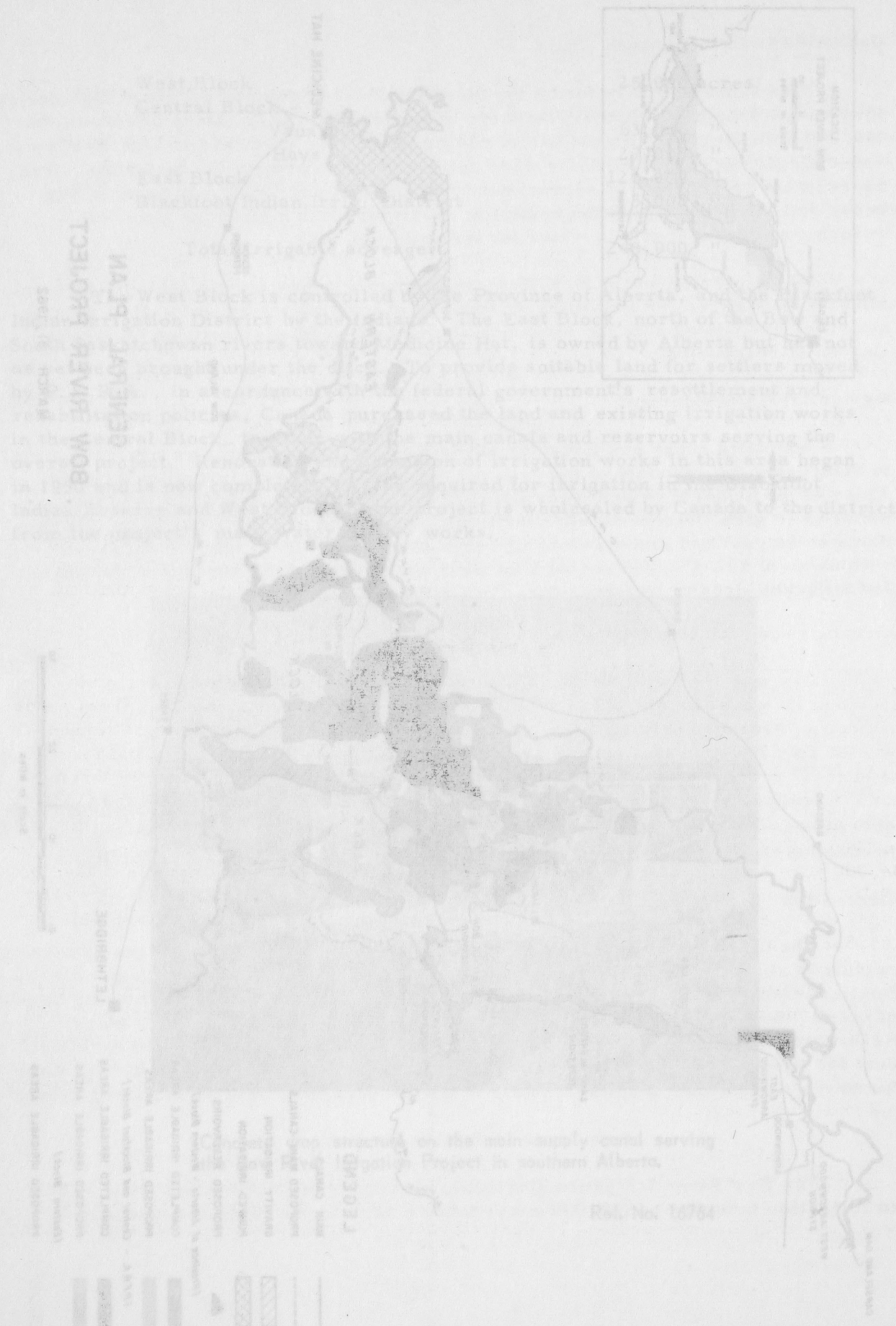




# GENERAL PLAN BOW RIVER PROJECT

MARCH 31, 1962





West Block is controlled by the Province of Alberta, and the Central and East Blocks are controlled by the federal government. The Bow River Project is a large-scale irrigation project in southern Alberta, Canada. The project involves the construction of a main supply canal and several distribution canals to provide water to the West Block, Central Block, and East Block. The project is designed to irrigate a total of 1,200,000 acres of land. The project is a joint venture between the Province of Alberta and the federal government. The project is a major source of income for the Province of Alberta and the federal government. The project is a major source of employment for the people of southern Alberta. The project is a major source of water for the people of southern Alberta. The project is a major source of food for the people of southern Alberta. The project is a major source of life for the people of southern Alberta.



## Construction

The program of replacing wooden structures with concrete counterparts continued during 1961. In addition, a number of bypasses were constructed around structures on the main canal system to facilitate drainage. To complete Canada's agreement to deliver water to the Blackfoot Indian Reserve, a new lateral turnout was installed in the main canal. A new bridge was also built to provide access to the southwest corner of the Blackfoot Indian Reserve.

Drainage work included the cleaning of 14,050 feet of existing drain and excavation of 8,000 feet of new drain in the Vauxhall and Hays districts, as well as the relocation of 1,920 feet of drain in the south Hays district.

Due to the large head of water carried in canals during 1961 to meet irrigation demands, there was a noticeable increase of seepage below canals and laterals, and alkali has shown up on certain slopes below the ditches. Investigations were carried out during the year and plans have been made to line a number of laterals located in sandy areas to overcome this problem.

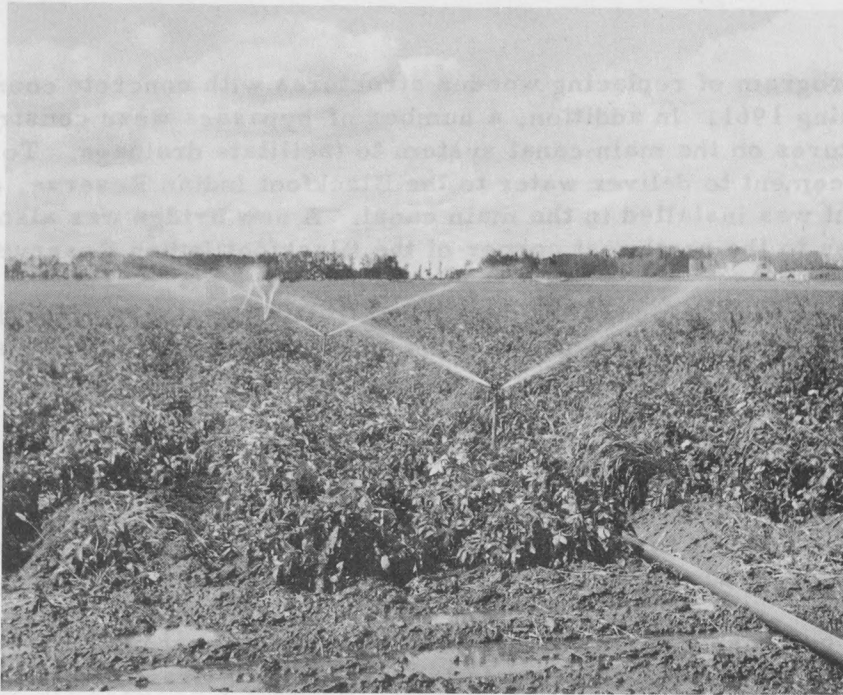
As an emergency measure to alleviate a serious water shortage problem that had developed on grazing leases to the southeast of Grantham, laterals which were abandoned by the Canada Land and Irrigation Company were renovated. As a result of this construction, sufficient stock water was delivered from the Bow River Project works to enable the grazing leases to be used all summer and fall.

## Operation and Maintenance

The year 1961 was the driest on record and more irrigation water was provided than ever before. Rainfall for the five-crop-growing months, from April to August, averaged only 4.48 inches in the Vauxhall district. Water was turned into the canal system on April 27 and shut off on October 20. High demand for water and excess evaporation resulted in many canals operating at near capacity throughout the season. Over this period 197,486 acre feet of water were delivered to 721 farm units, a substantial increase over the 149,190 acre feet utilized on the farms in 1960. The Alberta Bow River Development in the West Block was supplied with 34,002 acre feet of water, a substantial increase from the 19,864 acre feet used in 1960. Between the Carseland diversion on the Bow River and Lake McGregor, the canal was operated from May 20 to October 19, a total of 152 days, during which 284,558 acre feet of water was diverted for irrigation purposes.

Maintenance work included minor repairs to checks, bridges, drops, chutes, culverts and turnouts on the irrigation distribution system serving the project, and replacement of certain sections of the East and West Arrowwood siphon pipes which had become crushed, delaminated, or worn through use. In addition, sections of lateral canals "A" and "B" were repaired during the year to improve their efficiency and reduce seepage.

Probably the most serious problem arising in 1961 was the growth of submerged aquatic weeds in canals, resulting in a reduction of canal capacity in many instances to as much as 50 percent. In a season where demand for water was at a peak, the situation was acute. To deal with this problem canals were dragged, using



Sprinkler irrigating a field of potatoes being produced commercially in the Vauxhall district of the Bow River Irrigation Project.

Ref. No. 23112-4

heavy anchor chains for cutting the aquatic growth, which in turn was removed with dragline equipment and hand labor.

#### Agricultural Development

Due to increasing demand for livestock pasturage in the Vauxhall and Hays districts, improvements were made in the efficiency and carrying capacities of the three P. F. R. A. irrigated community pastures in the area. On the Vauxhall Pasture, 160 acres of pasture were broken, levelled and re-seeded. In the Hays area, 400 acres of irrigated pasture were levelled and broken for seeding in 1962. Operation of the pastures began on May 10 and lasted until October 5, a period of 148 days. The livestock carried in the pastures in 1961 were as follows:

Vauxhall Pasture	1,225 cattle
Hays East Pasture	300 "
Hays South Pasture	135 "
	2,600 ewes and their lambs

Due to the extremely dry conditions, approximately 300 head of cattle from Hays were pastured over the summer in the Suffield Community Pasture, which greatly relieved pressure on the Hays grazing leases.

✓ Production on irrigated land again emphasized the importance of livestock and feeding as the major stabilizing influence on the project.

Numbers of cattle on feed in the district declined, as many small feeders sold hay and grain at high prices rather than use it for feed. The total number of



cattle in the district, however, remained stable as more farmers wintered calves for restocking herds and feedlots in 1962-63.



Cattle grazing on one of two irrigated community pastures established by PFRA for the benefit of new settlers in the Hays district of the Bow River Irrigation Project.

Ref. No. 23051

Hog and lamb feeding declined over the previous year with the main emphasis being given to cattle, due to high feed costs and low prices. Turkey production, on the other hand, increased over 1960 due to the establishment of a new plant for dressing and processing poultry products in Lethbridge.

Cereal crops seeded under dry conditions did not germinate until late in the season. As a result, grain crop yields were low in contrast to the high returns realized from alfalfa and forage production.

In the field of specialty crops, potato growers continue to enjoy a steady demand for their product from new processing plants and fresh trade. A number of farmers also grew green canning beans, with returns ranging from \$136 to \$695 per acre. However, production of oil seed crops declined.

#### South Saskatchewan River Project

##### General

The South Saskatchewan River Dam is the key structure in long-range plans for controlling the South Saskatchewan River. The reservoir will provide water for hydroelectric power, irrigation, and recreation, as well as for other agricultural and domestic uses. It will minimize severe fluctuations of the water level and make water available for further power development downstream.



Aerial view of the South Saskatchewan River Dam showing progress in construction to August 1961.

Ref. No. 22328

#### Design and Planning

The P. F. R. A. Design Division, in association with the Soil Mechanics Division, continued to prepare the contract plans and specifications necessary to keep pace with construction. In addition, plans for other phases of the project scheduled for later construction were carried out, as well as studies of problems encountered during construction. Emphasis was placed on preparing preliminary and final designs of the tunnel gates, the tunnel stilling basin, and the spillway structure.

Final plans and specifications were completed during the year for the control shafts, and the transition sections which will connect the shafts to the upstream and downstream tunnels.

Co-operation with the Saskatchewan Department of Highways continued, particularly on plans and specifications for a contract let during the year covering a highway revision between Tichfield and No. 15 Highway.

#### Construction Activities

Construction continued on the South Saskatchewan River Dam Project during the year under the direction of the engineering staff at the construction headquarters.

At this time, the three main components of the dam under construction are the earth embankment, the five outlet tunnels and the spillway.



On the embankment, materials were placed to raise the dam to approximately half of its final height throughout its entire length, with the exception of part of the river channel which is being left open until the tunnel works are completed and final closure can be accomplished. Excavation of the main portion of the spillway area was also nearly completed by the end of the year.

On the downstream portion of the tunnels approximately 10,000 feet of tunnel was excavated to a 25-foot diameter by a type of mining equipment commonly known as a "mole" and a start was made on lining the tunnel walls with a 30 inch thickness of reinforced concrete. In the upstream section, the portals and the intake structures were completed; preparations have also been made to begin excavation of tunnels similar in length and design to those in the downstream section.



Obtaining measurements inside one of the five river diversion tunnels currently under construction at the South Saskatchewan River Damsite.

Ref. No. 66385

Excavation of the five 40-foot diameter control-shaft substructures for the river diversion tunnels was completed during the year. They are now being lined with reinforced concrete in preparation for installing control gates and other equipment necessary to regulate the flow of water in the tunnels. The shafts, approximately 225 feet in depth, are located on the centerline of the dam, each extending vertically from a tunnel to the top of the dam.

Other contract work in progress during the year included processing concrete aggregate for tunnel and spillway construction, constructing a drainage conduit and appurtenances, supplying cement, and revising Highway #19.

A labor force reaching a peak of 1,050 in number during July and August, and dropping to a low of 450 during December, was employed on contract throughout the year. In addition, 250 to 290 people were steadily employed by P. F. R. A., local businesses and other operations related to the project, over the same period.



Rocks picked from the site of the South Saskatchewan River Dam are stockpiled for use as riprap.

Public Relations

Ref. No. 22536

To accommodate visitors (60,000 people this year) a tourist pavilion was operated at a location near the construction headquarters, housing displays, models and photographs. The pavilion is also a vantage point for viewing the construction area. A second viewpoint, attended at appropriate times by the pavilion staff, is maintained across the river.

Family groups, mainly from Saskatchewan, made up the largest number of visitors. However, many came in organized groups, such as service clubs, school and church groups, and agricultural and business organizations. Other visitors during the year were tourists from other parts of Canada and the U.S.A., and state officials and technical groups from Canada and other parts of the world.

In response to requests, illustrated talks were given to various organizations on project construction and development.

#### Pre-development Farm

As construction of the project progresses, there is increasing interest in methods of developing land for irrigation and related problems of crop production





Cutting alfalfa-brome mixture produced on irrigated land on the Pre-development Farm at Outlook, in connection with mechanical grazing experiments currently being undertaken.

Ref. No. 22349



Freshly cut alfalfa-brome mixture is transported directly to the feed lot in the mechanical grazing operation.

Ref. No. 22347

and farm management. The Pre-development Farm, established at Outlook in 1949, continued its primary purpose of providing information, by demonstration, for use in the future development of irrigation in the area.

Mechanical grazing was introduced on the Farm during 1961 with promising results. More emphasis was placed on studying methods of reducing labor requirements and improving the effectiveness of water application.

Plans were made for more participation by the Research Branch of the Canada Department of Agriculture and the Agricultural Engineering Department of the University of Saskatchewan in obtaining data on: (1) farming operations on grass-legume mixtures, (2) fertilizer response, and (3) water application efficiency. In addition, the meteorological service of the Department of Transport, made plans to establish an agro-meteorological station in the research area which will be manned by the farm staff.

Provision is made to have a member of the staff show the increasing number of visitors around the Farm. Also, plans were prepared to increase public interest.

#### Buffalo Pound Lake Water Supply Project

Through an agreement with the Province of Saskatchewan, the Government of Canada assumed responsibility for maintaining water levels in Buffalo Pound Lake, a reservoir in the headwaters of the Qu'Appelle Valley. It is a source of water for the cities of Regina and Moose Jaw, and also supplies water for irrigation



Dyking system established by PFRA at east end of Buffalo Pound Lake to impound water for both agriculture and domestic purposes.

Ref. No. 22343



and other agricultural purposes in the valley. Facilities have been installed to increase the water storage capacity of Buffalo Pound Lake and to supplement existing supplies of water in the lake by pumping from the South Saskatchewan River.

During 1961, approximately five months of pumping were carried out, commencing April 27 and extending to September 29. During this period 27,850 acre feet of water were pumped from the river. This was sufficient to supply the two cities and to increase the water level in the lake from 1,669.27 to 1,670.22 feet above sea level.

One major improvement during the year involved raising, widening and strengthening the dyke and works on the east end of Buffalo Pound Lake. This work was carried out by contract and included placing approximately 65,000 cubic yards of compacted embankment and about 15,000 cubic yards of gravel and riprap for roads and slope protection.

#### Assiniboine River Project

Activities on this project during the 1961-62 fiscal year, centered principally in two areas: the dyked area on the Assiniboine River downstream of Portage la Prairie, and the proposed Shellmouth damsite near the town of Shellmouth in the upper reaches of the Assiniboine.



Section of dyking system established by PFRA along a stretch of the Assiniboine River for flood protection near Portage la Prairie, Manitoba.

Ref. No. 21383

On the former job, dyke reconstruction work was in progress from June through September. During this period, P. F. R. A. forces using rented equipment, repaired and built approximately nine miles of dyke in six separate locations. Prior to the start of construction, all dyked areas repaired during the previous season were seeded to grass.

At the Shellmouth site, surveys, drilling, and special studies were continued in connection with engineering investigations.

#### Northwest Escarpment and Interlake Reclamation Project

Under the terms of an agreement between Canada and Manitoba, mutually acceptable projects for flood control and land reclamation in this large area are undertaken on a cost-sharing basis, with P. F. R. A. offering its engineering services as required.

During 1961 this work centered on three main projects: (1) the continuation of studies in the Wilson Creek Experimental Watershed on the east slopes of the Riding Mountains, (2) reclamation work on the Fairford and Icelandic Rivers in Manitoba's interlake region, and (3) channel improvement on the Icelandic River.



An example of the highly erosive nature of stream banks on the eastern slopes of the Riding Mountains in Manitoba which are currently under study.

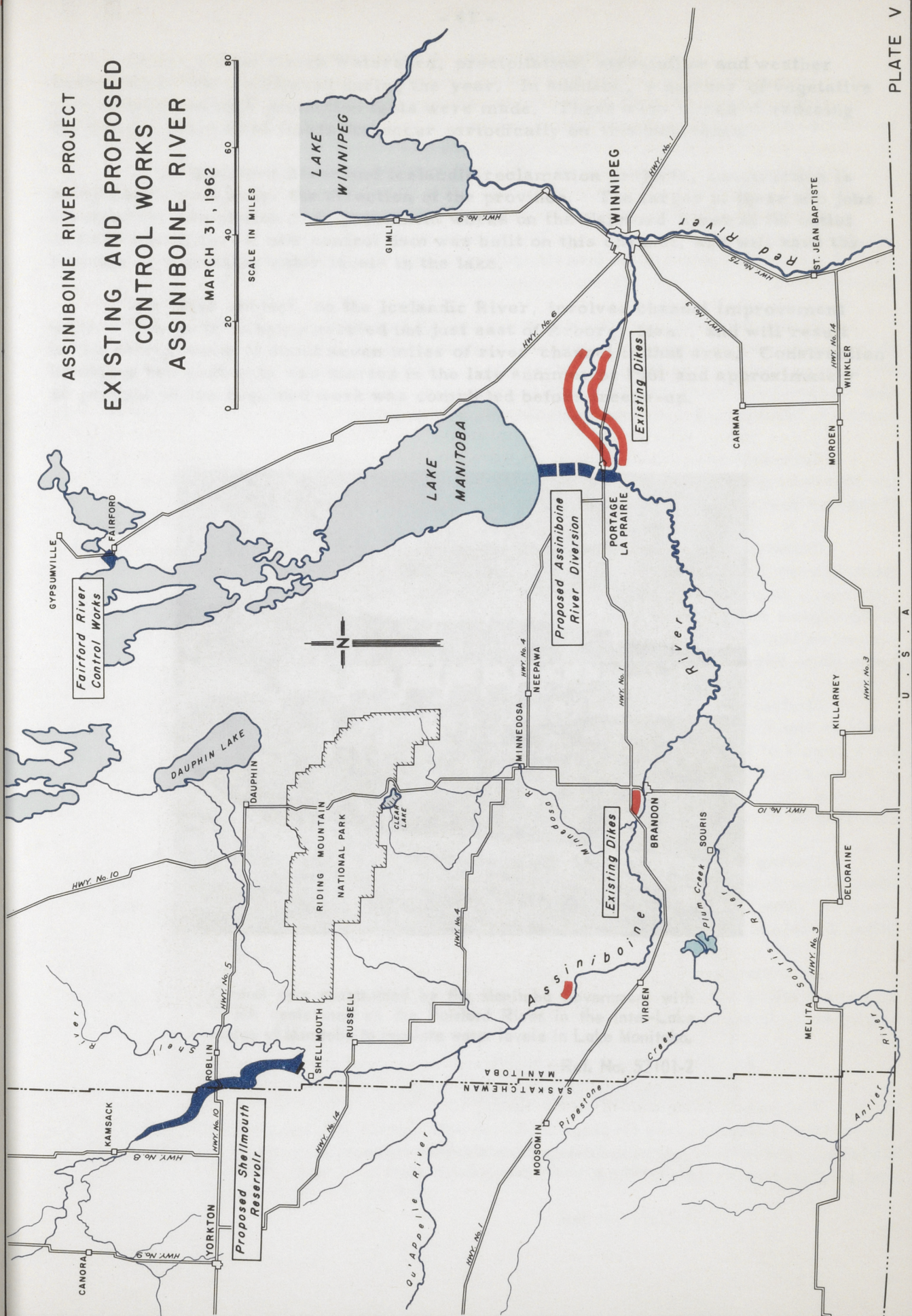
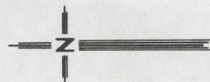
Ref. No. 52086-10



# ASSINIBOINE RIVER PROJECT EXISTING AND PROPOSED CONTROL WORKS ASSINIBOINE RIVER

MARCH 31, 1962

SCALE IN MILES  
0 20 40 60 80





By September 1922, some preliminary work was in progress to improve the drainage system. During this period, P. F. R. A. has been using aerial photography required and their approximate size and of the separate basins. Prior to the start of construction, a dyked area acquired during the project is shown on the map.

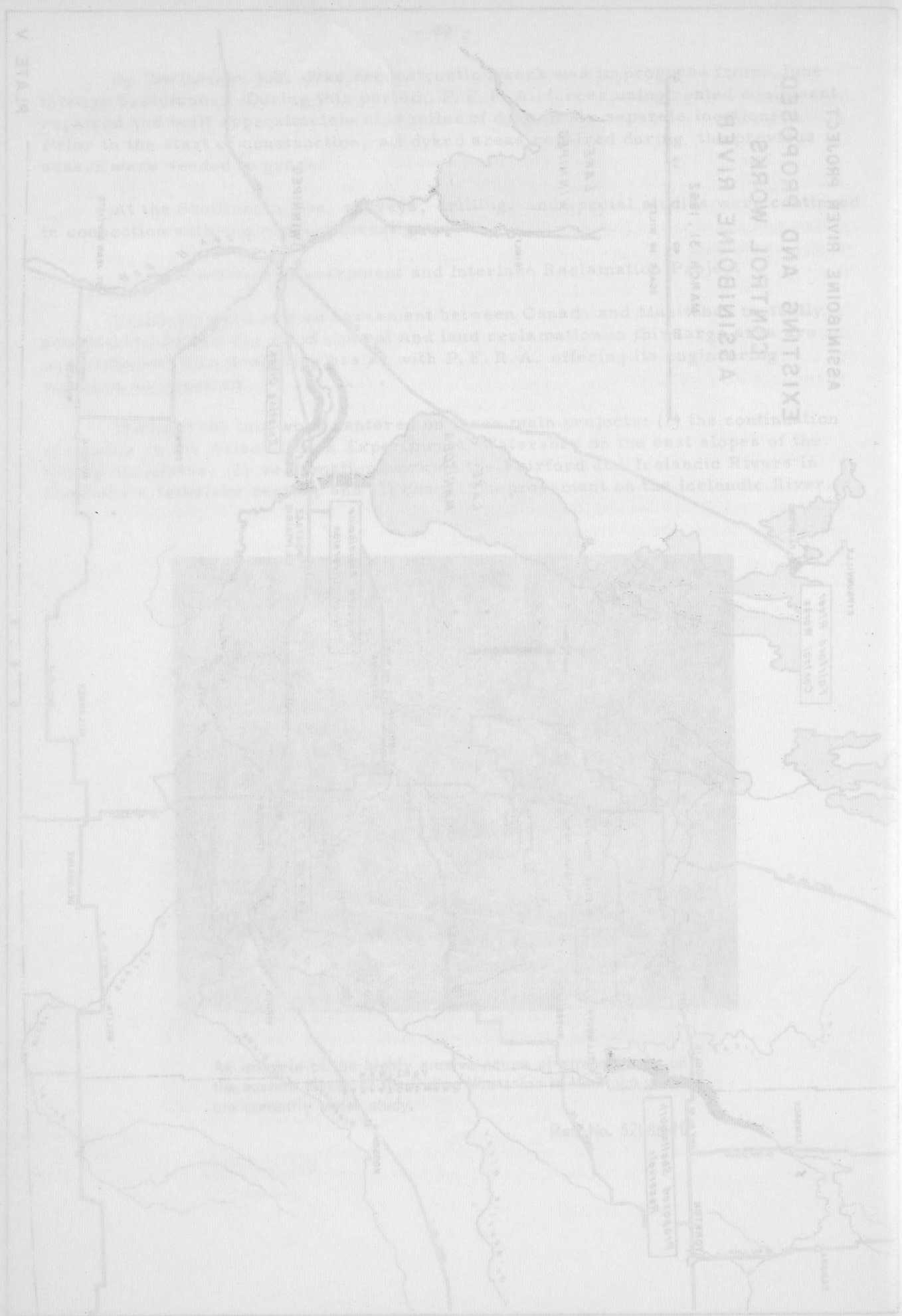
At the same time, the study, including aerial studies, is in connection with the drainage system.

The Department and Interstate Reclamation Project.

The project is an agreement between Canada and the United States for the control of water and land reclamation in the St. Lawrence River and its tributaries. The project is being carried out with P. F. R. A. offering its engineering services.

The project has two main objects: (1) the continuation of the work on the east slopes of the St. Lawrence River and (2) the work on the St. Lawrence River in the St. Lawrence River.

ASSINIBOINE RIVER  
CONTROL WORKS  
EXISTING AND PROPOSED  
ASSINIBOINE RIVER PROJECT



As a result of the study, the following conclusions were reached:

Ref. No. 52

ASSINIBOINE RIVER  
CONTROL WORKS  
EXISTING AND PROPOSED



On the Wilson Creek Watershed, precipitation, streamflow and weather observations were continued during the year. In addition, a number of vegetative plot studies and bank protection tests were made. These were aimed at reducing the damage from flash floods that occur periodically on this watershed.

On the Fairford River and Icelandic reclamation projects, construction is being carried out under the direction of the province. The larger of these two jobs involved the completion of improvement works on the Fairford River at its outlet to Lake Manitoba. A new control dam was built on this channel, and will have the function of regulating water levels in the lake.

The other project, on the Icelandic River, involves channel improvement work. This work is being carried out just east of Arborg, Man., and will result in the enlargement of about seven miles of river channel in that area. Construction involving two contracts was started in the late summer of 1961 and approximately 40 percent of the required work was completed before freeze-up.



Control dam constructed by the Manitoba Government with PFRA assistance on the Fairford River in the Inter-Lake region of Manitoba to regulate water levels in Lake Manitoba.

Ref. No. 52101-2

## ENGINEERING SERVICES

Following are reports of the work carried out during the year by the specialist divisions of engineering services.

### Design Division

Again during 1961, the South Saskatchewan River Project represented the major item of work for the Design Division relating both to the planning and design, as well as the preparation of specifications on new contracts associated with construction.

Complete plans and specifications were prepared for the Antler Dam, Birch Hills Community Project, Craik Dam, Deloraine Dam, LaSalle Dams (2), Perry Park Dam, Boissevain Project, West Poplar Project and for the construction of a new spillway for Kettlehut Dam. All of the above projects were eventually let on contract, except the last three which were constructed by P. F. R. A. forces.

Complete plans and specifications were also prepared for a new spillway for the Weyburn Dam. Tenders on this project were called by the Department of Public Works of Saskatchewan, and a contract was awarded.

Other projects on which detailed study was undertaken included the Avonlea Dam, Berry Creek Dam (renovations and improvements), Crystal City Project, Esterhazy Dam, Gainsborough Dam, Stephenfield Dam, Summercove Dam (renovations and improvements) and Theodore Dam. Preliminary studies were conducted on the Assiniboine River Project (Shellmouth Dam) and on a plan to drain Lost Lake (Bow River Project).

Studies conducted by the Hydraulic Laboratory included completing model work on the Waterton Spillway, and on spillways for the Craik and Avonlea projects. As a result of these tests, an improved hydraulic design was made possible for each of these structures.

### Drafting Section

During the 1961-62 fiscal year, a total of 700 drawings were produced by the staff of the Drafting Section: the preparation of plans for the South Saskatchewan River Project, drawings for project specifications, and miscellaneous work required by other divisions and branches of P. F. R. A.

Other work provided by the staff of the drafting office included reproducing and assembling specifications and reports; maintaining the technical library, filing engineering drawings, and assisting the Hydraulic Laboratory.

### Air Photo Analysis and Engineering Geology Division

The heavy program of work during the previous year for the Air Photo Analysis and Engineering Geology Division was continued into 1961 within the division's three-fold responsibilities of air photo analysis, engineering geology and photogrammetric mapping.



Office air photo studies for selecting potential damsites and for general water development were carried out on Ribstone Creek, Blood Indian Creek and Pincher Creek in Alberta, Melfort Creek, Pierce Creek, Little Pipestone Creek and the Souris River in Saskatchewan, and Pleasant Valley Creek in Manitoba. Air photo searches for construction materials were conducted in the vicinity of Tulameen in British Columbia, High River, Cameron Projects and Kitsim Reservoir in Alberta, and West Poplar Creek and Antier Creek in Saskatchewan. Detailed investigations into sources of riprap for the South Saskatchewan River Project were made. Comprehensive air photo studies to assist in planning and constructing community pastures at Suffield, Spiritwood and Pasqua were completed.

In the field of engineering geology, studies were continued at The Gap dam-site pertaining mainly to bedrock stratigraphy and structure of the canyon. A preliminary report was also prepared on: (1) the bedrock and surficial geology of a site proposed for a low dam in the Pembina Valley, and (2) brief studies of surface water levels of Old Wives Lake, Sask., and groundwater levels in the vicinity of the south Saskatchewan River Dam.

At the South Saskatchewan River Dam the Division began a mapping program to record the geology of the deep excavations in shale during construction. Mapping was carried out concurrently with the contractor's operations in all cases. It included mapping of the excavations for the high-level intakes, upstream portals, downstream transition structures, and portions of the control shafts and downstream tunnels excavated up to the end of March.



Staff member of Air Photo Analysis and Engineering Geology Division, inspecting shale out-cropping along a stretch of the Boyne River in Manitoba.

Large-scale mapping by photogrammetric techniques included completing work on (1) the reservoir for the South Saskatchewan River Dam and (2) the proposed damsite for the Shellmouth Project in Manitoba. Small-scale mapping of the reservoir area for the Shellmouth Project was also completed. Mapping projects presently under way include the reservoir for dams proposed for construction on Antler River, Swan River and Pembina River.

The contract for periodic air photo coverage of the South Saskatchewan River Dam, to record construction progress and changes in river pattern, was extended. New air photo coverage was also secured for the Pasquia Project and for the valley of the North Saskatchewan River through agreements with the Interdepartmental Committee on Air Surveys sponsored by the Department of Mines and Technical Surveys.

#### Soil Mechanics and Materials Division

During 1961 an active soil-sampling and testing program was carried out. It involved drilling over 50,000 lineal feet of test hole and taking approximately 12,000 separate soil samples for testing in the Saskatoon Laboratory. In addition, the drilling section installed several water wells in community pastures.

In the Saskatoon laboratory, both soil and concrete testing were carried out. This included over 60,000 individual tests on soil samples, and 2,000 concrete tests; the majority of the latter being carried out for construction control.

Results of field investigations and laboratory tests are plotted on plans and profiles in the Saskatoon office. The final investigational phase is the preparation of reports which summarize and interpret all the pertinent information and gives design recommendations based on the collected data. Thirty such reports were prepared during the year.

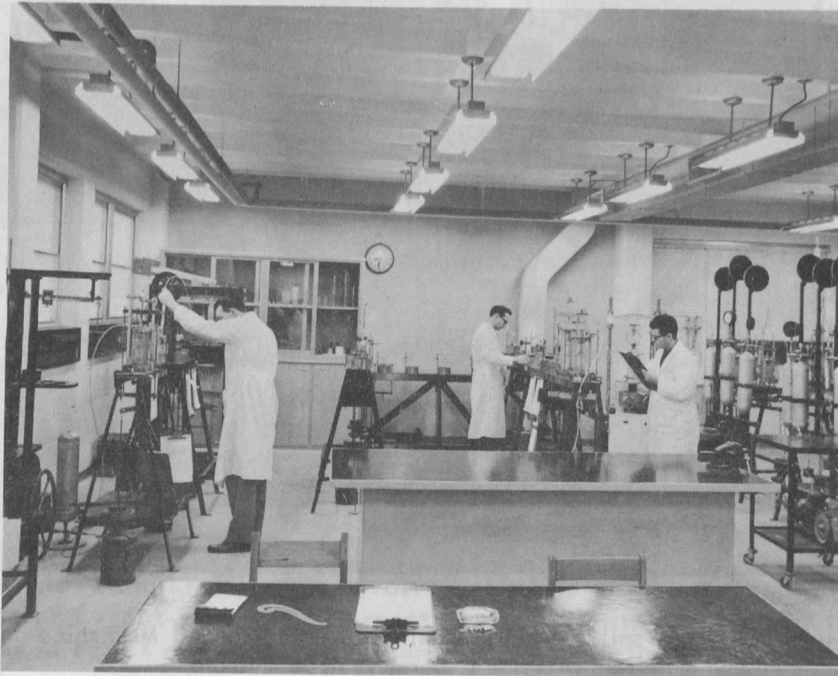
Other activities consisted of installing apparatus at various projects to measure the performance of the structures, and the regular reading of previously installed apparatus. Technical advice and control testing were provided upon request for projects under construction.

On the South Saskatchewan River Project, the division's program of exploration, sampling and testing to obtain more detailed information at structure sites and for new contracts, was continued. Special studies were continued on the stability of the shale, anchor piles in the shale, slope protection and the use of fly ash and sulphate-resistant cement in the concrete.

In addition, the Division was asked to assist the Province of Manitoba in studying the slope stability problems that might arise during the construction of the Red River Floodway. A test excavation was made by the Province in 1961, to get some idea of the difficulties that might be encountered during construction, and to test the strength of the soil in the field by developing slope failures. Test apparatus was installed to measure the behaviour of the soil under both normal and saturated conditions. The test excavation also showed that standard types of excavating machinery would perform reasonably satisfactorily under favorable weather



conditions to the full design depth of the floodway at the test site, despite the soft wet nature of the Red River clays.



Computing soil strength at the Soil Mechanics and Materials Division Laboratory in Saskatoon.

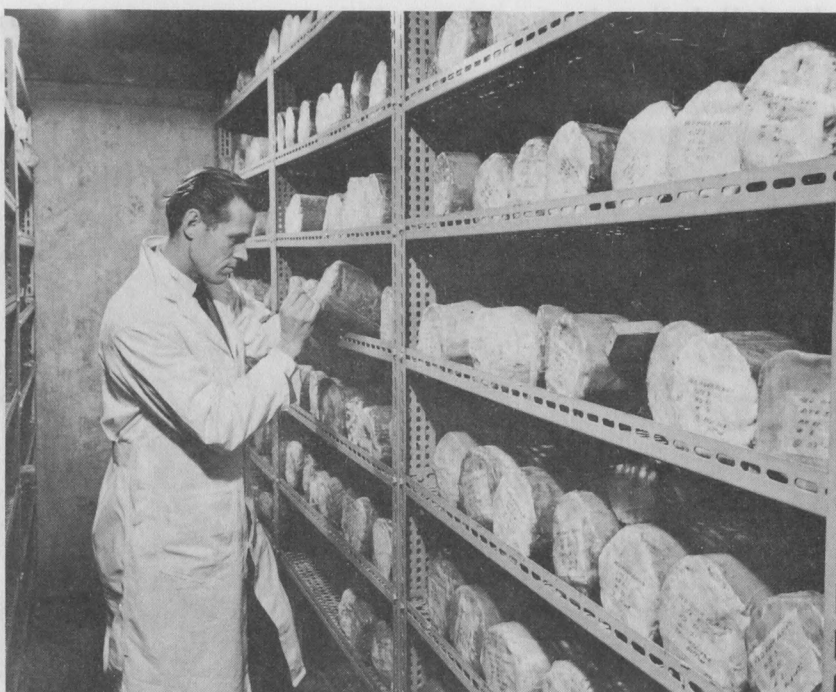
Ref. No. 21721

#### Hydrology Division

To provide information for planning, designing and operating P. F. R. A. projects, the Hydrology Division reported on 44 streams and lakes during 1961. Twenty-four of these involved water supply studies and the remaining 20, flood potential investigations. In addition, 11 miscellaneous studies were made of various hydrologic problems relating to P. F. R. A. projects. A report was also completed on water supply and water use in the Wood River Basin. This information will be useful in planning the full utilization of existing and proposed P. F. R. A. storages on the watershed.

In its capacity as Secretariat of the Prairie Provinces Water Board, and as a result of its relationship with various other agencies, fundamental studies are conducted in connection with water allocation, stream flow analysis, watershed development, etc.

Two of these studies extend use of available hydrometric knowledge to un-measured streams. One of them, the "Magnitude of Frequency of Floods in Alberta, Saskatchewan and Manitoba", has been completed. The other, "The Amount and Variation of Runoff in Alberta, Saskatchewan and Manitoba", is nearing completion.



Marking soil cores for identification at the Soil Mechanics and Materials Division Laboratory in Saskatoon.

Ref. No. 21732

In addition, a meteorologist seconded to the P. F. R. A. Hydrology Division by the Department of Transport, has recently completed a depth-area-duration analysis for all great prairie rainstorms during the last 60 years. Studies are being made, using the rainstorm analysis, to obtain information for the design of major spillways. Concurrently, a study of the magnitude and frequency of point rainfall (10 square miles and less) is being made to obtain design figures for small watersheds.

### Surveys

Surveys play an essential and large role in providing the necessary field data required in planning, designing and constructing P. F. R. A. projects. Operations in this category within P. F. R. A. include engineering investigations and legal surveys.

Engineering surveys include reconnaissance, preliminary and final surveys and are carried out as a routine phase of investigation and construction of structures and projects built by P. F. R. A. As a valuable aid in this work, aerial photography is being used increasingly to obtain necessary preliminary topographical information where large areas are involved. Further details of engineering surveys carried out by the Engineering Services Branch during 1961 are discussed in other sections of this report under the heading of the project concerned.

Activities of the Legal Surveys Section during the year included assignments both in Saskatchewan and Alberta.



In Saskatchewan most of the work done by the Legal Surveys Section consisted of a complete revision survey of the Consul Irrigation Project, together with miscellaneous revision, reservoir and structure rights-of-way surveys on the Val Marie and Nashlyn Irrigation Projects. Also carried out during 1961 were seven reservoir surveys on the Pasquia, Poplar River, Birch Hills, Antler Creek, Cleland, Oungre and Craik Community Projects, two road surveys on the Rush Lake and Nashlyn Irrigation Projects, and monument re-establishment and parcel surveys on the Tecumseh and Big Stick community pastures respectively. In addition, survey monuments were restored or re-established on the Avonlea Creek Project, and the west portion of Kettlehut Lake Dam and Reservoir was surveyed for expropriation. Finally, on the South Saskatchewan River Project a plan was completed showing the lake line and Crown Land for the reservoir to be created by the main dam of the South Saskatchewan River. This was necessitated by a request received for a full legal survey to be conducted in the area.

Activities in Alberta mainly involved a continuation of surveys on the St. Mary and Bow River Irrigation Projects associated with irrigation development in these areas. During 1961 this included carrying out approximately 70 miles of right-of-way traverse and 27 miles of drainage canal and pipeline right-of-way surveys for the Province of Alberta on the St. Mary Irrigation Project, and traverse, boundary and subdivision surveys in the Hays district of the Bow River Project. Surveys on the Blood Indian Reserve involved establishing township subdivision survey monuments and right-of-way monuments, and establishing survey ties to photograph 20 thousand acres of the Blood Indian Reserve for the Air Photo Analysis and Engineering Geology Division.

Following February 15, 1962, the Lethbridge survey office that served the Alberta area was closed. Survey work required in Alberta will be contracted out to private firms.

# APPENDIX I

## WATER DEVELOPMENT PROGRAM

Progress by Years in the Construction of Individual, Neighbor and Community Projects

Fiscal Yr.	Number of Projects Constructed				Financial Assistance Paid			
	DO	SWD	IRR	TOTAL	DO	SWD	IRR	TOTAL
*1935-48	29,907	5,013	1,144	36,064	3,252,722.44	685,654.65	272,970.51	4,211,347.60
1948-49	1,508	220	77	1,805	171,566.42	319,540.09	365,241.68	856,348.19
1949-50	3,031	164	123	3,318	367,392.80	214,973.66	220,242.50	802,608.96
1950-51	3,442	494	721	4,657	408,385.52	295,594.47	237,892.22	941,872.21
1951-52	478	106	350	934	60,051.14	95,488.30	171,773.19	327,312.63
1952-53	861	119	290	1,270	100,219.54	32,769.41	116,672.07	249,661.02
1953-54	1,791	190	187	2,168	227,372.12	126,415.05	209,287.59	563,074.76
1954-55	1,314	242	193	1,749	161,716.42	201,457.82	122,534.03	485,708.27
1955-56	504	159	114	777	68,141.55	78,443.87	87,547.88	234,133.30
1956-57	863	131	114	1,108	112,268.86	46,272.04	157,803.10	316,344.00
1957-58	2,218	225	155	2,598	268,273.35	143,319.23	90,787.91	502,380.49
1958-59	3,288	281	168	3,737	411,791.24	135,211.03	97,049.58	644,051.85
1959-60	3,974	259	136	4,369	820,479.90	98,981.43	70,894.59	990,355.92
1960-61	4,602	501	170	5,273	990,874.56	118,308.58	76,121.89	1,185,305.03
1961-62	9,249	297	154	9,700	2,035,757.87	108,058.79	76,374.39	2,220,191.05
TOTAL	67,030	8,401	4,096	79,527	9,457,013.73	2,700,488.42	2,373,193.13	14,530,695.28

DO - Dugout

SWD - Stockwatering Dam

IRR - Individual Irrigation Project

\* - Annual figures for accumulated years may be found in previous reports



APPENDIX II

WATER DEVELOPMENT PROGRAM

Number of Individual, Neighbor, Community and Large Water Development Projects and amount of financial assistance paid from April 1, 1961 to March 31, 1962

IRRIGATION PROJECTS

DUGOUTS

DAMS

TOTALS

	DUGOUTS			DAMS			IRRIGATION PROJECTS			TOTALS		
	Projects Paid	Financial Assistance Paid	Projects Paid	Projects Paid	Financial Assistance Paid	Projects Paid	Projects Paid	Financial Assistance Paid	Projects Paid	Financial Assistance Paid	Projects Paid	Financial Assistance Paid
<b>MANITOBA</b>												
Individual	1,789	386,430.49	3	838.84	4	3,068.57	1,796	390,337.90				
Neighbor	2	1,427.77	-	-	-	-	2	1,427.77				
Community	-	-	-	-	-	-	-	-				
Large Water	-	-	4	163,088.00	-	-	4	163,088.00				
TOTAL	1,791	387,858.26	7	163,926.84	4	3,068.57	1,802	554,853.67				
<b>SASKATCHEWAN</b>												
Individual	5,520	1,209,585.04	150	32,402.65	101	40,121.76	5,771	1,282,109.45				
Neighbor	42	17,933.00	2	199.56	11	8,849.70	55	26,982.26				
Community	25	35,902.12	8	36,660.41	1	10,149.82	34	82,712.35				
Large Water	-	-	5	215,416.00	-	-	5	215,416.00				
TOTAL	5,587	1,263,420.16	165	284,678.62	113	59,121.28	5,865	1,607,220.06				
<b>ALBERTA</b>												
Individual	1,851	349,419.95	129	25,978.54	37	14,184.54	2,017	389,583.03				
Neighbor	3	2,306.92	-	-	-	-	3	2,306.92				
Community	17	32,752.58	5	11,978.79	-	-	22	44,731.37				
Large Water	-	-	1	31,463.00	-	-	1	31,463.00				
TOTAL	1,871	384,479.45	135	69,420.33	37	14,184.54	2,043	468,084.32				
GRAND TOTAL	9,249	2,035,757.87	307	518,025.79	154	76,374.39	9,710	2,630,158.05				

# APPENDIX III

## WATER DEVELOPMENT PROGRAM

Number of Individual, Neighbor, Community and Large Water Development Projects and amount of financial assistance paid from April 1, 1935 to March 31, 1962

	DUGOUTS				DAMS				IRRIGATION PROJECTS				TOTALS	
	Projects Paid		Financial Assistance Paid		Projects Paid		Financial Assistance Paid		Projects Paid		Financial Assistance Paid		Projects Paid	
	Projects Paid	Financial Assistance Paid	Projects Paid	Financial Assistance Paid	Projects Paid	Financial Assistance Paid	Projects Paid	Financial Assistance Paid	Projects Paid	Financial Assistance Paid	Projects Paid	Financial Assistance Paid	Projects Paid	Financial Assistance Paid
<b>MANITOBA</b>														
Individual	14,367	1,761,484.12	331	27,461.77	195	68,003.94	14,893	1,856,949.83						
Neighbor	65	15,282.63	15	4,496.20	8	2,212.62	88	21,991.45						
Community	7	12,530.86	24	131,160.47	2	30,582.54	33	174,273.87						
Large Water	-	-	24	1,444,778.82	6	617,217.00	30	2,061,995.82						
<b>TOTAL</b>	<b>14,439</b>	<b>1,789,297.61</b>	<b>394</b>	<b>1,607,897.26</b>	<b>211</b>	<b>718,016.10</b>	<b>15,044</b>	<b>4,115,210.97</b>						
<b>SASKATCHEWAN</b>														
Individual	42,279	5,778,917.20	4,876	461,263.80	2,497	614,170.29	49,652	6,854,351.29						
Neighbor	381	113,083.31	58	12,689.95	116	56,153.03	555	181,926.29						
Community	346	307,289.63	194	1,025,409.64	68	654,793.34	608	1,987,492.61						
Large Water	-	-	42	3,351,283.37	35	4,079,910.00	77	7,431,193.37						
<b>TOTAL</b>	<b>43,006</b>	<b>6,199,290.14</b>	<b>5,170</b>	<b>4,850,646.76</b>	<b>2,716</b>	<b>5,405,026.66</b>	<b>50,892</b>	<b>16,454,963.56</b>						
<b>ALBERTA</b>														
Individual	9,474	1,325,318.58	2,773	294,738.77	1,142	281,782.66	13,389	1,901,840.01						
Neighbor	44	14,094.03	14	3,960.99	15	5,033.69	73	23,088.71						
Community	67	129,013.37	116	739,306.83	53	660,461.02	236	1,528,781.22						
Large Water	-	-	5	58,095.00	18	693,004.00	23	751,099.00						
<b>TOTAL</b>	<b>9,585</b>	<b>1,468,425.98</b>	<b>2,908</b>	<b>1,096,101.59</b>	<b>1,228</b>	<b>1,640,281.37</b>	<b>13,721</b>	<b>4,204,808.94</b>						
<b>GRAND TOTAL</b>	<b>67,030</b>	<b>9,457,013.73</b>	<b>8,472</b>	<b>7,554,645.61</b>	<b>4,155</b>	<b>7,763,324.13</b>	<b>79,657</b>	<b>24,774,983.47</b>						



APPENDIX IV  
COMMUNITY WATER STORAGE AND IRRIGATION PROJECTS  
To March 31, 1962

(Community Projects costing less than \$1,000.00 are grouped under the heading of Small Community Projects in Appendices II and III)

MANITOBA

Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Alexander Soil Conservation	Alexander	Soil Conservation	1944	-	-	5,250
Birtle Dam	Birtle	Stockwatering Dam	1947	-	-	11,490
Boissevain	Boissevain	Storage Dam	1954	-	580	29,992
Boissevain Spillway	Boissevain	Spillway	1961	-	-	20,782
Brandon Flood Irrigation	Brandon	Flood Irrigation	1949	1,000	-	27,107
Brandon Water Supply	Brandon	Storage Dam	1940	-	500	3,996
Clearwater Storage	Clearwater	Stockwatering Dam	1938	-	12	5,949
Crystal City Storage	Crystal City	Stockwatering Dam	1935	-	3	3,334
Dead Lake Community	Gladstone	Irrigation	1950	20	90	1,933
Deloraine Dam	Deloraine	Storage Reservoir	Incomplete	-	1,400	1,575
Edwards, R.M. of	Melita	Stockwatering Dam	1935	-	100	10,214
Elie Dam	Elie	Stockwatering Dam	Incomplete	-	109	300
Hague Dam	Sanford	Stockwatering Dam	1953	-	-	29,183
Hampson Dam	Sanford	Storage Dam	1954	-	420	16,899
Hartney	Hartney	Irrigation	1941	-	-	10,264
Killarney	Killarney	Multi-purpose Dam	1956	-	800	41,965
LaSalle River Dams	LaSalle	Stockwatering Dam	1941	-	900	22,989
LaSalle River Dam #2	LaSalle	SWD & Domestic	1961	-	260	36,531
Lewko Dam	Sanford	Storage Dam	1954	-	320	20,874
Little Souris River Dam	Melita	Stockwatering Dam	1945	-	250	1,380

Name of Project	Location	Type of Project	Completed	Irr. Acc.	Stor. Cap. Acre Feet	Costs
Mary Jane Storage Project	Manitou	Multi-purpose Dam	1959	-	1,150	96,045
McAuley Community Dam	McAuley	Stockwatering Dam	1955	-	20	2,051
Melita	Melita	Irrigation	1941	3,900	3,200	11,372
Minnedosa Dam	Minnedosa	Storage Dam	1950	20	1,500	105,051
Morden Dam (Dead Horse Creek)	Morden	Irrigation	1941	100	1,200	344,274
Morris River Dams (3)	Morris	Stockwatering Dams	1960	-	207	64,232
Morris River-Rock Lake	Carmen	Stockwatering Dam	1940	-	10,000	23,401
Napinka	Napinka	Irrigation	1941	-	-	6,770
Neepawa Storage Project	Neepawa	Multi-purpose Dam	1960	-	4,000	345,238
Oak Lake	Oak Lake	Irrigation	1956	13,000	-	119,205
Park Lake	Neepawa	Stockwatering	1953	-	-	21,626
Perry Park Dam	Westbourne	SWD & Domestic	1961	-	70	30,627
Plum Coulee	Plum Coulee	Multi-purpose Res.	1957	-	12	5,939
Plumas	Plumas	Multi-purpose Dam	1960	-	30	2,991
Plumas	Plumas	Stockwatering Dam	1961	-	14	18,685
Rivers Dam	Rivers	Multi-purpose Res.	1960	-	26,000	1,085,392
Roland	Roland	Stockwatering Dugout	1957	-	1.5	1,000
Rosebank Dam	Rosebank	Stockwatering	1948	-	32	12,161
Roseau River Dam	Dominion City	Multi-purpose Dam	1957	-	-	54,705
Shoal Lake Project	Shoal Lake	Stockwatering	1948	-	3,500	8,491
Souris Dam	Souris	Multi-purpose Dam	1952	-	150	73,597
Souris, Town of	Souris	Stockwatering Dam	1935	-	150	3,841
St. Malo Dam	St. Malo	Multi-purpose Dam	1958	-	1,770	266,937
St. Lazare Storage Reservoir	Lazare	Stockwatering	1948	-	5	1,470
Starbuck Dam	Starbuck	Stockwatering	1961	-	712	46,187
Turtle Mountain Reservoir	Boissevain	Multi-purpose Res.	1956	70	600	11,968



Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Wawanesa	Wawanesa	Irrigation	1941	-	-	125,332
Westbourne, R.M. of	Gladstone	Stockwatering	1947	-	-	5,993
Whitemud River	Woodside	Stockwatering	1949	-	160	6,506
Whitemud River Storage	Gladstone	Stockwatering Dam	1943	-	660	11,464
SASKATCHEWAN						
Abbey	Abbey	Stockwatering Dugout	1958	-	1.5	1,000
Abound	Caron	Multi-purpose Res.	1960	-	200	5,210
Adair Creek	Wolseley	Multi-purpose Dam	1956	40	350	59,849
Adam's Lake	Battle Creek	Irrigation	1936	1,500	2,000	8,831
Admiral Storage Dam	Admiral	Irr. & Stockwatering	1949	2,000	2,200	38,520
Allan	Allan	Stockwatering	1948	-	300	4,477
Altawan	Govenlock	Irrigation	1960	1,000	5,830	261,479
Alsask	Alsask	Multi-purpose Res.	1958	-	30	9,710
Antler Creek Project	Carnduff	SWD & Domestic	1961	-	790	54,141
Arcola	Arcola	Stockwatering Dam	1939	-	(underground)	17,310
Arena	Arena	Irr. & Stockwatering	1949	1,600	3,200	5,218
Arm River, R.M. of	Davidson	Dugout	1961	-	-	1,000
Arrarat	Abbey	Stockwatering Dam	1959	-	6	7,398
Artland Grazing	Marsden	Dugout	1955	-	1.5	1,000
Avon Heights Grazing Co-op.	Shaunavon	Stockwatering	1955	-	60	2,428
Avonhurst	Qu'Appelle	Stockwatering	1956	-	1.5	3,200
Avonlea	Avonlea	Dugout	1959	-	3	2,170
Aylesbury	Craik	Stockwatering Dam	1961	-	40	1,265
Balcarres	Balcarres	Stockwatering	1948	-	100	7,203
Balcarres Storage	Balcarres	Stockwatering	1953	-	20	10,294
Bateman	Gravelbourg	Irr. & Stockwatering	1949	400	114	4,739
Battleford	N. Battleford	Irrigation (pump)	1941	800	-	3,058
Beadle	Eston	Dugout	1959	-	3	1,393
Beadle Project	Eston	Dugout	1960	-	-	1,393
Beaver Creek	Hanley	Stockwatering	1951	-	200	7,998
Beechy #1	Beechy	Irr. & Stockwatering	1946	600	1,000	12,746
Beechy #2	Beechy	Irr. & Stockwatering	1948	200	100	6,240

Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Beechy Co-op.	Beechy	Stockwatering Dugout	1957	-	1.5	1,000
Belvoir	Glamis	Dugout	1959	-	3	1,484
Bengough Agricultural Community Project	Bengough	Dugout	1960	-	-	1,000
Bengough, R.M. of	Bengough	Stockwatering Dugout	1957	-	1.5	1,000
Big Arm Storage	Liberty	Irrigation	1939	5,000	5,200	13,161
Big Stick Stockmen's Co-op. Assoc. Ltd.	Maple Creek	Dugouts (3)	1961	-	-	2,567
Birch Hills	Birch Hills	Dugout	1961	-	125	36,152
Black Hills Grazing Co-op.	Piapot	Dugout	1955	-	5	2,520
Boharm	Boharm	Stockwatering	1948	-	100	6,250
Bracken	Bracken	Stockwatering	1946	-	158	1,001
Braddock Dam	Braddock	Irrigation	1952	2,000	1,600	83,999
Brightwater Creek	Hanley	Irrigation	1956	2,500	3,500	11,713
Brightwater Lake	Dundurn	Irrigation	1960	7,000	-	12,211
Brown Hill Dam	Grenfell	Multi-purpose Dam	1958	-	275	99,394
Buffalo Pound	Qu'Appelle Valley	Irrigation	1940	x	-	83,723
Buffalo Valley	Wiseton	Dugout	1960	-	-	1,000
Burstall	Burstall	Dugout	1960	-	-	1,500
Cabri	Cabri	Stockwatering	1948	-	340	37,553
Cabri Dam (Spillway)	Cabri	Stockwatering	1960	-	340	29,107
Cadillac	Cadillac	Irrigation	1945	800	1,350	32,887
Camberly	Camberly	Irrigation & Dam	1950	-	100	2,106
Canora	Canora	Storage Dam	1941	-	300	16,128
Caron	Caron	Storage	1948	-	100	17,109
Caron Water Development	Thunder Creek	Storage Dam	1944	-	43,500	710,433
Cedoux	Cedoux	Stockwatering	1947	-	314	4,999
Ceylon Reservoir	Ceylon	Irrigation & Dam	1952	300	250	8,087
Chapleau Lake	Montmartre	Stockwatering	1949	-	3,530	8,208
Clair Creek	Wadena	Flood Irrigation	1957	100	-	1,877
Claydon	Claydon	Multi-purpose Res.	1957	-	30	2,498
Claydon Grazing Co-op.	Claydon	DO & Stockwatering	1961	-	-	1,750
Claydon	Claydon	Irrigation	1959	700	300	7,015



Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Clearfield	Goodwater	Irrigation & Dam	1951	70	300	5,999
Cleland Dam	Marriott	Stockwatering Dam	1961	-	210	35,949
Colgate	Colgate	Flood Irrigation	1958	320	-	7,110
Conquest, Village of	Conquest	Dugout	1954	-	1.5	1,000
Congress-Stonehenge	Limerick	Stockwatering Dugout	1958	-	2	1,000
Consul-Vidora	Vidora	Irrigation	1950	3,000	-	62,500
Corning Dam	Corning	Stockwatering Dam	1961	-	250	8,264
Coral	Trossachs	Stockwatering Dam	1961	-	150	7,626
Coronach	Coronach	Irrigation & Dam	1947	300	1,450	97,807
Craven Dam	Qu'Appelle Valley	Irrigation	1943	x	-	33,675
Crooked & Round Lake	Qu'Appelle Valley	Irrigation	1941	x	-	48,650
Cypress Storage	Ravenscrag	Irrigation	1939	20,000	80,000	467,691
Coleville, Village of	Coleville	Dugout	1958	-	1.5	1,000
Coleville	Coleville	Dugout	1961	-	-	1,500
Cupar	Cupar	Irrigation	1960	3,000	-	6,733
Cupar	Cupar	Irrigation	1961	500	-	9,558
Cupar, R.M. of	Markinch	Dugouts (4)	1961	-	-	1,650
Dalmeny	Dalmeny	Stockwatering	1951	-	3	1,000
Davidson	Davidson	Irrigation	1937	100	277	3,114
Davidson Storage Project	Davidson	Multi-purpose Dam	1959	-	400	36,006
Davin	Kronau	Stockwatering	1947	-	1,080	13,501
Dead Lake	Macoun	Irrigation	1941	Souris River Development		
Delisle	Delisle	Stockwatering	1950	-	45	17,528
Demaine	Demaine	Dugout	1960	-	-	4,899
Dixon Lake	Spring Valley	Irrigation	1959	500	-	1,000
Donamar	Fort Qu'Appelle	Stockwatering Dam	1961	-	2,500	13,951
Doonside Dam	Wawota	Irrigation	1955	1,500	60	4,442
Downey Lake	Maple Creek	Stockwatering Dam	1958	-	1,500	3,438
Dry Coulee	Eastend	Stockwatering Dam	1958	-	58	1,404
Dry Lake	Forward	Stockwatering	1949	-	10	1,605
Dunn & Watt	Mankota	Irrigation	1937	-	600	9,729
Dunning	Radville	Irrigation	1951	305	-	2,996
Dummer	Milestone	Irrigation & Dam	1949	120	200	3,566
Dodsland	Druid	Dugout	1958	500	200	4,742
				-	1.5	1,000

Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Eagle Hill Creek	Plenty	Stockwatering	1946	-	10,700	6,432
Eagle Lake	Coleville	Irrigation & Dam	1949	2,000	3,000	5,998
Eastend	Eastend	Irrigation	1939	4,000	1,300	161,682
Eastview	Eastview	Stockwatering	1949	-	200	5,970
Eatonia	Eatonia	Stockwatering	1949	-	12	1,199
Echo Lake	Qu'Appelle Valley	Irrigation	1943	x	-	41,753
Egg Lake	Avonhurst	Multi-purpose Res.	1957	800	-	10,047
Elfros	Elfros	Stockwatering	1949	-	25	7,330
Elfros, R.M. of	Elfros	Dugouts (2)	1961	-	-	1,000
Emerald Hill	Milestone	Stockwatering	1958	-	250	7,582
Eston	Eston	Stockwatering	1954	-	10	11,469
Fahlman's Creek Project	Balgonie	Stockwatering	1949	-	400	15,599
Fairy Hill	Qu'Appelle Valley	Irrigation	1941	x	-	4,302
Fairview, R.M. of	Fairview	Dugout	1961	-	-	2,000
Fife Lake Restoration	Constance	Irrigation & Dam	1954	1,200	-	9,596
Fife Lake #2	Constance	Irrigation & Dam	1954	650	-	6,348
Fillmore	Fillmore	Stockwatering Dugout	1958	-	1.5	1,000
Fleming	Fleming	Dugout	1960	-	-	1,000
Fleming Creek	Moosomin	Stockwatering	1950	-	75	3,282
Foam Lake (Elfros)	Foam Lake	Irrigation	1957	4,000	-	11,964
Francis Lake	Morse	Irrigation	1956	1,560	-	17,305
Frenchman Flats	Dundurn	Irrigation	1949	1,800	2,800	9,996
Frenchville	Frenchville	Irrigation & Dam	1947	430	670	8,096
Fox Valley, R.M. of	Fox Valley	Dugouts (2)	1961	-	-	1,953
Gibson Flats	Pennant	Irrigation	1953	1,200	-	14,177
Girvin	Girvin	Stockwatering Dam	1937	-	19	2,180
Glenbain, R.M. of	Glenbain	Dugout	1961	-	-	1,000
Glenside	Glenside	Stockwatering	1948	-	150	3,286
Glidden, Village of	Glidden	Dugout	1959	-	3	1,200
Gooseberry Lake	Corning	Stockwatering	1948	-	2,500	8,783
Gouverneur Dam	Ponteix	Irrigation	1952	6,000	10,000	242,468
Graham-Rogers	Qu'Appelle	Irrigation	1959	500	-	2,780



Name of Project	Location	Type of Project	Completed	Irr. Ac.	Store, Cap. Acre Feet	Costs
Grattle Grazing Co-op.	Hoosier	Dugout	1960	-	3	1,495
Gravelbourg South	Gravelbourg	Irrigation	1948	600	1,500	8,186
Gravelbourg Storage	Gravelbourg	Irrigation	1947	500	-	1,917
Grazing Co-op. #76	Piapot	Dugouts (4)	1961	-	-	4,800
Grosnick	Lake Alma	Stockwatering Dugout	1957	-	1.5	1,000
Gunn Grazing Co-op.	Shaunavon	Multi-purpose Res.	1957	-	10	1,632
Gull Lake	Gull Lake	Multi-purpose Res.	1960	-	80	1,850
Hague Dugout	Hague	Stockwatering	1950	-	2	1,000
Hazlet	Hazlet	Multi-purpose Dam	1960	-	500	3,550
Hodgeville	Hodgeville	Stockwatering	1949	-	5	2,748
Hanley	Hanley	Stockwatering	1946	-	60	3,797
Harris Reservoir	Maple Creek	Irrigation	1956	1,000	5,000	238,074
Haunted Hills Grazing Co-op.	Moose Jaw	Stockwatering Dam	1959	-	10	1,640
Haunted Hills Grazing Co-op.	Moose Jaw	Dugout	1961	-	-	1,101
Hoosier, Hamlet of	Hoosier	Dugout	1959	-	3	1,190
Hugonard Coulee Dam	Lebret	Multi-purpose Dam	1956	100	400	64,231
Jackfish Creek	Meota	Stockwatering Dam	1943	-	90	2,940
Jumping Deer Creek	Lipton	Stockwatering	1947	-	145	6,092
Kaposvar	Stockholm	Stockwatering	1947	-	290	11,946
Kaposvar Creek	Melville	Stockwatering Dam	1954	-	1,400	102,747
Katepwa Weir	Katepwa	Dam	1957	-	-	61,192
Kelfield	Kelfield	Stockwatering	1947	-	25	4,927
Kerrobert	Kerrobert	Multi-purpose Res.	1957	-	40	11,554
Keyser	Cupar	Stockwatering Dam	1961	-	80	5,427
Kincaid	Kincaid	Stockwatering	1956	-	10	2,539
Kindersley, R.M. of	Kindersley	Dugout	1961	-	-	2,000
Kindersley	Kindersley	Stockwatering	1949	-	300	2,007
Kettlehut Reservoir	Kettlehut	Stockwatering Dam	Incomplete	-	-	2,687
Kisbey Flats	Kisbey	Irrigation	1939	2,300	5,000	23,211
Koch-Froh	Qu'Appelle	Multi-purpose Res.	1956	160	-	2,390

Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Lac Pelletier	Lac Pelletier	Stockwatering Dam	1937	-	3,350	2,139
Lacadena	Lacadena	Irrigation	1954	-	-	9,678
Lafleche	Lafleche	Stockwatering Dam	1940	-	38	2,524
Lafleche Dam	Lafleche	Multi-purpose Dam	1957	15,000	30,120	627,922
Lajord	Lajord	Dam	1936	-	300	13,800
Lake of the Rivers	Assibinoia	Stockwatering Dam	1938	-	300	10,805
Lancer Water Users	Lancer	Irrigation	1953	1,265	-	35,000
Langenburg	Langenburg	Irrigation & Dam	1949	800	200	11,752
Langenburg	Langenburg	Irrigation	1954	-	2.5	3,000
Larsen	Radville	Multi-purpose Dam	1957	-	500	36,437
Last Mountain Lake	Qu'Appelle Valley	Irrigation	1941	x	-	42,721
Lebret	Qu'Appelle Valley	Irrigation	1941	x	-	16,307
Lemsford	Lemsford	Stockwatering Dugout	1957	-	1.5	1,000
Linacre Co-op.	Fox Valley	Dugout	1960	-	-	1,100
Little Manitou Lake	Watrous	Dam	1957	-	-	39,271
Lone Tree Municipality	Climax	Dugout	1960	-	-	1,200
Lonesome Lake	Vidora	Irrigation	1949	900	800	2,771
Long Creek #1	Estevan	Stockwatering Dam	1938	-	137	8,729
Long Creek #2	Estevan	Stockwatering Dam	1938	-	90	8,701
Longlaketon, R.M. of	Earl Grey	Dugouts (2)	1961	-	-	1,100
Longlaketon, R.M. of	Earl Grey	Dugouts (2)	1961	-	-	1,000
Loon Creek	Markinch	Stockwatering Dam	1945	-	700	7,180
Lucky Lake	Lucky Lake	Stockwatering	1946	-	120	7,596
McIntosh Slough	Golden Prairie	Irrigation	1949	500	1,500	1,990
Macklin Storage	Macklin	Stockwatering	Incomplete	-	40	967
Mankota, R.M. of	Mankota	Dugouts (2)	1961	-	-	2,062
Maple Creek	Maple Creek	Irrigation	1938	10,000	23,260	356,179
Maple Grove	Goodwater	Dam	1959	-	330	5,988
Marcelin	Blaine Lake	Dugout	1961	-	-	1,000
March Flood Irrigation	Cedoux	Irrigation	1948	400	-	1,765
Markinch South	Markinch	Irrigation	1961	350	-	3,223
Martin Co-op.	Maple Creek	Dugout	1960	-	-	4,230
Masefield	Masefield	Stockwatering	1938	-	40	3,187



Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Masfield Water Users	Masfield	Multi-purpose Dam	1957	500	250	7,999
Matador	Matador	Irrigation & Dam	1946	120	220	5,216
Maymont	Maymont	Dugout	1959	-	1.5	1,200
Maxim Lake	Maxim	Stockwatering	1949	-	5,000	20,472
McCrane, R.M. of	Kenaston	Stockwatering Dam	1937	-	350	1,896
McDonald Creek	McCord	Irrigation & Dam	1950	400	90	4,992
McGurk Lake	Carlyle	Dam	1960	-	2,000	3,128
Meadowland	Macklin	Irrigation	1954	500	-	6,370
Meeting Lake	Redfield	Stockwatering	1949	-	100	2,683
Melaval	Melaval	Stockwatering	1950	-	18	1,200
Meota, R.M. of	Meota	Dugout	1953	-	1.5	1,000
Middle Creek	Battle Creek	Irrigation	1937	1,000	20,000	18,663
Mine Coulee	Neptune	Stockwatering	1948	-	40	4,377
Miry Creek, R.M. of	Abbey	Dam	Incomplete	-	20	4,680
Montague Lake	Assiniboia	Irrigation	1953	235	-	1,000
Moose Jaw Creek	Lang	Irrigation	1938	2,250	2,180	7,618
Moose Mountain	Corning	Irrigation	1937	-	8,000	14,829
Moosomin Dam (Keenan Bridge)	Moosomin	Multi-purpose Dam	1954	-	9,000	449,184
Muenster	Muenster	Irrigation	1949	25	11	2,754
Muenster	Muenster	Multi-purpose Dam	1960	-	80	8,085
Nashlyn Irrigation	Consul	Irrigation	1961	1,000	-	39,944
Neudorf	Neudorf	Multi-purpose Res.	1958	-	-	1,790
Newburn Lake	Invermay	Irrigation & Dam	1952	50	1,280	6,477
North Herbert Extension	Herbert	Irrigation	Incomplete	-	-	511,909
North Portal	North Portal	Dugout	1959	-	2	1,810
North Qu'Appelle	Fort Qu'Appelle	Stockwatering Dam	1948	-	100	2,386
Oakdale Municipality	Coleville	Dugout	Incomplete	-	-	1,020
Orkney	Orkney	Stockwatering Dam	1958	-	10	1,982
Oxbow Dam	Oxbow	Irrigation	1941	3,900	3,200	17,436
Oungre Dam	Oungre	Stockwatering Dam	1961	-	325	45,830

Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Pangman	Pangman	Multi-purpose Res.	1957	30	125	5,533
Pasqua	Moose Jaw	Stockwatering	1948	-	40	3,777
Pike Lake	Vanscoy	Irrigation & Dam	1948	900	2,500	7,360
Pinkham Co-op.	Pinkham	Dugout	1960	-	-	1,497
Pinkham Project	Kindersley	Dugout	1960	-	-	1,000
Pinto Creek	Kincaid	Dugout	1960	-	-	1,000
Pipestone Lake	Broadview	Stockwatering Dam	1938	-	1,600	11,785
Pheasant Creek	Lemberg	Storage	1954	-	500	114,464
Poplar River	Coronach	Irrigation & Dam	1950	300	900	14,838
Portreeve	Portreeve	Stockwatering Dugout	1957	-	1.5	1,000
Primate	Primate	Stockwatering Dugout	1957	-	1.5	1,000
Prud'homme	Prud'homme	Dugout	1961	-	-	1,000
Radville	Radville	Stockwatering	1947	-	32	5,019
Reciprocity	Glen Ewen	Irrigation & Dam	1949	2,000	1,750	27,410
Redford	Wilkie	Stockwatering	1951	-	160	1,814
Richman Irrigation	Glen Bain	Irrigation	1949	-	1,000	4,607
Richardson-McKinnon	Consul	Irrigation	1946	3,000	-	53,913
Ridgeway Flats	Qu'Appelle	Multi-purpose	1957	65	80	2,054
Rinfret	Weyburn	Dugout	1959	-	6	6,997
Rockglen	Rockglen	Irrigation & Dam	1955	600	300	13,455
Rosedale	Hanley	Irrigation	1948	60	100	1,016
Rosthern Water Storage	Rosthern	Storage Dam	1958	-	160	22,613
Rough Bark Creek	Goodwater	Stockwatering Dam	1937	-	1,500	9,314
Round Hill Water Users	N. Battleford	Irrigation & Dam	1950	425	50	4,791
Ruddell, Village of	Ruddell	Dugout	1959	-	1.5	1,000
Russell Creek	Pambrun	Irrigation	1951	1,000	2,000	72,993
Rockfield	Trossachs	Multi-purpose Res.	1960	-	200	6,850
Saline	Invermay	Multi-purpose Res.	1958	1,000	-	2,377
Saltcoats	Bredenbury	Dugout	1960	-	-	1,000
Saltcoats, R.M. of	Saltcoats	Dugout	1961	-	-	1,000
Salvador	Reward	Stockwatering	1951	-	5	1,000
Saskatoon	Saskatoon	Storage Dam	1940	-	1,200	290,446



Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Sauder	Rush Lake	Storage & Irrigation	1949	-	800	29,115
Scotsguard	Scotsguard	Irrigation & Dam	1949	2,000	3,000	1,962
Scotsguard	Shanavon	Stockwatering Dugout	1960	-	-	2,800
Scotsguard	Shanavon	Stockwatering Dugout	1958	-	3	1,857
Shaheen	Rush Lake	Storage & Irrigation	1949	-	300	9,028
Shackleton, Village of	Shackleton	Dugout	1959	-	1.5	1,500
Shrimp Lake	Herschel	Stockwatering	1947	-	450	9,367
Sinfield	Kelvington	Multi-purpose Res.	1957	10	-	3,177
Skyeta, Com.	Springside	Dam	1959	-	15	3,885
Sioux Reserve	Fort Qu'Appelle	Stockwatering	1949	-	75	8,605
Sliding Hills Municipality	Veregin	Dugout	1960	-	-	1,000
Smiley, Village of	Smiley	Dugout	1949	-	1.5	1,000
Smiley	Smiley	Irrigation & Dam	1951	600	300	9,998
Snake Bite	Beechy	Irrigation	1954	665	-	9,999
Snipe Lake	Eston	Stockwatering	1949	-	-	3,415
Snowdown Grazing Co-op.	Fox Valley	Dugout	1959	-	1.5	1,898
Snowdown Grazing Co-op.	Fox Valley	Dugouts (5)	1961	-	-	3,000
Souris-Estevan	Estevan	Irrigation	1941	-	-	91,133
Souris-Oxbow Weir	Oxbow	Stockwatering	1960	-	340	37,343
Souris River	Weyburn	Flood Control	1948	-	-	11,998
South Abernethy Project	Abernethy	Irrigation	1956	320	-	14,568
Spangler Project	Govenlock	Irrigation	1948	1,500	2,100	4,950
Squaw Creek Grazing Co-op.	Craik	Dugout	1961	-	-	1,000
Stelcam Community Dam	Stelcam	Stockwatering	1956	-	360	9,791
Stephens Dam	Abernethy	Stockwatering	1948	-	12	8,716
Sturgis Community Dam	Sturgis	Stockwatering	1950	-	60	20,961
Summerberry	Summerberry	Multi-purpose Res.	1956	427	-	6,824
Summercove	Mankota	Irrigation & Dam	1949	1,200	1,500	23,837
Summit Creek	Bridgeford	Irrigation & Dam	1949	800	3,000	13,227
Sunbeam Creek	Indian Head	Multi-purpose Res.	1957	100	300	5,216
Swift Current	Swift Current	Irrigation	1946	30,000	95,000	816,472
Talmage	Cedoux	Irrigation	1948	1,600	-	3,483
Tantallon	Tantallon	Stockwatering Dam	1942	-	-	2,790

Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Tatagwa Lake	Weyburn	Flood Irrigation	1958	10,000	-	28,840
Terrell, R.M. of	Spring Valley	Stockwatering	1952	-	10	2,491
Thunder Creek	Kettlehut	Flood Irrigation	1948	-	-	27,204
Thunder Creek Channel	Moose Jaw	Irrigation & Dam	1951	300	7,000	10,007
Tilney	Tilney	Multi-purpose Res.	1958	-	100	8,308
Torquay Dam	Torquay	Stockwatering Dam	1961	-	280	8,287
Tribune Dam	Tribune	Stockwatering	1950	-	300	6,499
Truax	Truax	Stockwatering	1949	-	250	11,899
Tuxford	Tuxford	Flood Irrigation	1957	800	-	7,320
Twelve Mile Lake	Maxstone	Flood Irrigation	1956	-	-	7,998
Tyvan	Tyvan	Stockwatering	1947	-	1,000	11,986
Val Marie	Val Marie	Irrigation	1937	5,920	7,000	214,558
Val Marie West (including new Spillway 1959)	Val Marie	Irrigation	1940	4,230	2,000	321,586
Valeport Dyke	Valeport	Dam	1958	1,500	-	139,748
Valley Park Irrigation	Valley Lake	Irrigation	1949	1,200	-	8,133
Verwood	Verwood	Stockwatering Dam	1958	-	16	1,414
Weed Creek	Broadview	Flood Irrigation	1958	2,000	-	3,099
West Osage	Cedoux	Irrigation & Dam	1949	300	600	4,905
West Poplar #1	Kildeer	Multi-purpose Res.	1957	750	1,000	16,230
Weyburn	Weyburn	Irrigation	1940	-	4,000	51,311
Wheatlands, R.M. of	Parkbeg	Irrigation & Dam	1951	100	60	3,452
White Gull Lake	Gull Lake	Flood Irrigation	1958	263	-	1,743
Willow Bluff Grazing Co-op.	Aylesbury	Dugouts (2)	1961	-	-	1,000
Wilson Lake	Lizard Lake	Multi-purpose Res.	1956	400	-	2,813
Wittrock	Hodgeville	Irrigation	1947	520	-	3,884
Wolseley	Wolseley	Stockwatering	1948	-	20	1,800
Wolverine Creek	Humboldt	Stockwatering Dam	1945	-	522	52,600
Wood Mountain	Willow Bunch	Irrigation & Dam	1951	40	60	6,337
Woodrow-Pinto Creek	Woodrow	Irrigation	1949	1,000	1,400	41,982
Wood River Development	Coderre and Gravelbourg	Stockwatering Dam	1942	-	4,923	33,738



Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Wynn Community Project Wynyard	Wolseley Wynyard	Multi-purpose Res. Stockwatering	1957 1947	500 —	— 35	3,152 6,225
Young	Young	Stockwatering	1948	—	250	8,892
x — Ultimate irrigation development for all projects along Qu'Appelle River Valley 30,000 — (total storage capacity — 95,600 acre feet).						
ALBERTA						
Acadia Valley	Acadia Valley	Dugout	1953	—	1.5	2,252
Acadia Valley #2	Acadia Valley	Dugout	1954	—	1.5	1,000
Aetna Irrigation District	Aetna	Irrigation	1947	8,000	—	82,004
Airdree	Calgary	Multi-purpose Res.	1958	—	200	9,789
Ambrose Flats	Irvine	Irrigation	1951	800	1,000	4,781
Anatole	Hanna	Stockwatering	1953	—	7	2,990
Antelope Park	Nemiscam	Stockwatering Dugout	1957	—	1.5	1,000
Argyle, M.D. of	Staveley	Stockwatering	1949	—	80	10,912
Atlee Gas Well #1	Atlee	Irrigation (pump)	1939	7,000	—	12,423
Atlee Gas Well #2	Atlee	Irrigation (pump)	1939	—	—	14,300
Atlee Buffalo	Atlee	Dugout	1959	—	9	7,200
Badger Lake	Lomond	Stockwatering	1948	—	10	2,990
Bain Community	Foremost	Dugout	1959	—	10.5	6,800
Balzac	Balzac	Irrigation	1956	900	—	8,141
Bare Creek	Comrey	Irrigation & Dam	1950	—	500	11,600
Bare Creek #2	Comrey	Multi-purpose Dam	1956	1,000	1,100	13,029
Bartman Dam	Cessford	Irrigation	1943	1,000	3,000	49,100
Beautyland	Bindloss	Dugout	1959	—	6	1,500
Beauvais Lake	Pincher Creek	Irrigation	1950	2,000	2,400	15,996
Beaver Dam Creek Reservoir	Castor	Stockwatering	1950	—	300	17,996
Bedford Slough	Medicine Hat	Irrigation	Incomplete	3,000	200	35,493
Bell Lake	Pollockville	Irrigation	1949	700	1,500	4,738
Berry Creek	Carolside	Irrigation	1948	10,000	30,000	158,884

Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Bircham	Calgary	Flood Irrigation	1958	1,200	-	8,295
Bluefield Grazing Assoc.	Thelma	Stockwatering	1956	-	30	3,500
Blood Indian Reserve	Cardston	Dugout	1960	-	-	2,079
Blood Indian Reserve #2	Cardston	Dugouts (8)	1961	-	-	3,000
Bow Island	Bow Island	Stockwatering Dam	1958	-	1.5	1,000
Bow Slope Grazing Assoc.	Brooks	Dugouts (3)	1961	-	-	1,358
Bowell	Bowell	Dugout	1954	-	1.5	1,000
Bowmanton	Bowmanton	Stockwatering	1953	-	500	14,860
Brunswick Coulee	Enchant	Irrigation	1949	500	205	4,631
B. T. Grazing Co-op.	Hilda	Stockwatering	1956	-	3	1,000
B. T. Grazing Co-op.	Hilda	Dugout	1961	-	-	1,312
Bull Pound Creek	Hanna	Stockwatering Dam	1939	-	2,000	-
Bullshead Creek	Medicine Hat	Irrigation	1940	800	1,130	8,170
Burke Creek	Claresholm	Stockwatering Dugout	1957	-	6	3,890
Burmis Creek	Burmis	Multi-purpose Res.	1957	550	250	14,683
Cameron	Youngstown	Multi-purpose Dam	1957	662	1,000	3,905
*Canada Land & Irrig. Project	Medicine Hat	Irrigation	1936	45,000	-	80,000
Caranova	Bowell	Multi-purpose Res.	1957	500	250	8,199
Carbon	Carbon	Multi-purpose Res.	1957	300	50	8,958
Champion	Champion	Irrigation	1954	2,500	-	4,984
Chauvin Grazing Co-op.	Chauvin	Dugouts (3)	1961	-	-	1,180
Chipman Creek	Burmis	Flood Irrigation	1957	700	-	3,298
Clear Lake	High River	Stockwatering	1948	-	10,000	35,000
Collins	Sheerness	Stockwatering Res.	1956	-	40	3,495
Commodore	Vulcan	Irrigation	1954	400	-	3,990
Comrey Grazing	Comrey	Dugout	1953	-	1.5	1,000
Conrich	West Calgary	Irrigation	1954	1,600	-	6,240
Consort	Hanna	Stockwatering	1955	-	20	9,651
Coutes Community Project	Coutes	Stockwatering Dam	1959	-	15	7,743
Cowley Community	Cowley	Irrigation	1952	750	-	4,666
Craigmyle	Craigmyle	Multi-purpose Dugout	1958	-	1.5	1,000
Cressday	Medicine Hat	Stockwatering	1954	-	-	13,541
Crowfoot	Gleichen	Multi-purpose Res.	1958	-	110	3,576



Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Cutbank Coulee	Cressday	Stockwatering Res.	1956	350	500	2,337
C.Y. Water Users	Taber	Stockwatering	1949	-	310	16,477
Cypress View	Irvine	Multi-purpose Res.	1958	-	300	11,336
D'Arcy	Hanna	Multi-purpose Res.	1957	-	15	2,116
Dead Fish Creek	Cessford	Irrigation	1949	4,000	5,000	47,832
Del Bonita	Twin River	Stockwatering	1955	-	250	9,196
Delia	Morrin	Stockwatering	1955	-	165	3,914
Drowning Ford	Vale	2 Dugouts & Dam	1953	-	100	4,368
Drowning Ford	Medicine Hat	Dugout	1961	-	-	1,000
East Berry Creek	Roselynn	Irrigation	1949	1,500	750	9,677
East Trout Creek	Stavely	Stockwatering Dam	1958	-	8	3,446
*Eastern Irrigation District	Brooks	Irrigation	1937	2,280	22,000	22,490
Eastern Irrigation District	Brooks	Irrigation	Incomplete	-	-	35,793
(Antelope Coulee)	Hanna	Stockwatering	1954	-	17	2,808
Esler	Macklin	Irrigation	1952	4,000	5,000	4,592
Esther Flood Irrigation	Grassy Lake	Irrigation	1949	12,000	1,000	38,568
Eureka Irrigation Project	Bow City	DO & Stockwatering	1961	-	-	1,300
Eyemore Grazing Assoc.	Stettler	Stockwatering Dam	1959	-	35	1,400
Fenn	Pincher Creek	Irrigation & Dam	1954	1,000	-	6,895
Fish Lake	Retlaw	Stockwatering	1948	-	1,500	20,125
Franklin Coulee	Sponden	Stockwatering Dugout	1956	-	6	1,596
Garden Plains	Calgary	Stockwatering Dam	1943	-	230	8,529
Graham Creek	Granlea	Stockwatering Dam	1959	-	725	12,853
Granlea Community	Three Hills	Multi-purpose Res.	1956	30	117	9,482
Grainger	Manyberries	Irrigation & Dam	1954	500	650	9,798
Greasewood Coulee	Halkirk	Irrigation	Incomplete	303	-	2,637
Halkirk Com.	Youngstown	Multi-purpose Res.	1957	2,000	401	8,000
Hampton	Hanna	Stockwatering	1948	-	500	29,498
Hanna						

Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Hays	Hays	Dugout	1960	-	-	4,500
Heath Creek	Northfork	Stockwatering Dam	1958	-	12	3,848
Hilda Community Project	Hilda	Multi-purpose Dugout	1957	-	10	5,180
Huber Dam	Castor	Stockwatering Dam	1959	-	112	3,068
Illingsworth	Bow Island	Dugout	1954	-	1.5	1,000
Indian Farm Creek	Pincher Creek	Irrigation & Dam	1953	600	500	4,795
Indus Community Project	Conrich	Irrigation	1955	1,220	-	9,843
Irvine	Irvine	Irrigation & Dam	1950	70	100	4,799
Irvine	Irvine	Multi-purpose Res.	1960	-	15	4,714
Jaydot	Elkwater	Multi-purpose Res.	1956	300	400	8,988
Kathryn	Calgary	Irrigation & Dam	1954	300	-	9,184
Lake Valley	Bowell	Stockwatering Dugout	1957	-	1.5	1,000
*Leavitt Irrigation	Mountain View	Irrigation	1939	7,000	7,050	65,578
Lewis	Vulcan	Irrigation & Dam	1953	350	-	4,345
Lochend Lake	Calgary	Dam & Irrigation	1958	1,600	1,100	7,750
Lomond	Lomond	Dugout	1959	-	3	1,000
Lomond Grazing Assoc.	Lomond	Dugouts (5)	1961	-	-	2,500
Loveland	Hanna	Irrigation	1954	3,000	-	17,655
Loyalist Creek	Hanna	Irrigation	1950	2,000	1,400	14,993
Lundbreck	Pincher Creek	Stockwatering	1953	-	100	4,689
McArthur	Walsh	Dam	1959	-	700	14,565
McAlpine Reservoir	Walsh	Irrigation	1951	600	1,000	15,917
McGregor Dam	Vulcan	Irrigation	1951	1,500	700	9,473
McLaren	Michichi	Multi-purpose Res.	1957	150	660	13,815
Mackay Dam	Walsh	Irrigation	1952	600	300	9,600
*Magrath	Magrath	Irrigation	1939	4,000	-	2,756
Meadow Creek Dam	Claresholm	Irrigation	1952	1,500	-	5,630
Medicine Lodge Stock Assoc.	Medicine Hat	Stockwatering Dam	1961	-	-	1,372
Mekastoe	Fort MacLeod	Dam	1959	-	210	4,594



Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Michelle Creek Project	Thelma	Multi-purpose Res.	1959	-	800	14,791
Michichi	Morin	Stockwatering Dam	1961	-	450	4,629
Milk River	Milk River	Dugout	1960	-	-	4,448
Milk River Co-op. Grazing Assoc.	Milk River	Dugouts (4)	1961	-	-	3,908
Milne Community Project	Conrich	Irrigation	1955	1,300	-	9,644
Mountain View	Mountain View	Storage Dam	1936	-	4,200	3,000
Naismith	Youngstown	Multi-purpose Res.	1956	300	145	9,421
Nemiscam	Etzikom	Dugout	1954	-	1.5	1,000
Nester	Cessford	Multi-purpose Res.	1957	300	1,350	8,670
New Brigden	Hanna	Stockwatering Dam	1958	-	60	3,582
Newell Cattle Grazing Assoc.	Brooks	Dugouts (5)	1961	-	-	2,055
Nobleford Water Users	Nobleford	Dugouts (2)	1953	-	3	11,173
North Fincastle	Taber	Irrigation & Dam	1948	2,000	4,000	17,943
Osborne Water Conservation	Idlesleigh	Dam	1959	-	210	9,495
Oyen	Oyen	Stockwatering Dugout	1957	-	1.5	1,000
Parfles	Chancellor	Irrigation	1954	250	-	4,730
Parr Reservoir	Castor	Multi-purpose Dam	1961	-	-	31,463
Patricia Grazing Co-op.	Patricia	Dugout & SWD	1961	-	-	3,363
Peace Butte Reservoir	Peace Butte	Stockwatering	1955	450	550	8,993
Peigan Indian Reserve	Brocket	Dugouts (6)	1961	-	-	4,395
Pershing Dam	Glenwood	Irrigation	1951	100	200	4,782
Pirmez Creek	Pirmez Creek	Irrigation	1951	6,000	500	20,998
Porcupine Hills	Fort MacLeod	Dugout	1959	-	1.5	4,599
Porcupine Hills Stock Assoc.	Fort MacLeod	Dugout	1960	-	-	1,868
Pothole Coulee	Magrath	Irrigation	1948	Part of St. Mary Project	-	-
Priddis	High River	Stockwatering	1955	-	312	8,802
Provost, Village of	Provost	Multi-purpose Dam	1956	-	3	4,812
Ranchville Community Res.	Ranchville	Irrigation	1957	300	-	4,950
*Raymond	Raymond	Irrigation	1943	3,000	1,600	6,000

Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Reid Hill	Vulcan	Irrigation	1952	1,000	700	8,866
Remount	Bindloss	Dugout	1960	-	-	3,000
Rock Creek Stock Assoc.	Sandbreck	Stockwatering Dugout	Incomplete	-	-	1,819
Rock Creek Stock Assoc.	Lundbreck	DO & Stockwatering	1961	-	-	2,380
Rock Lake Project	Brooks	Irrigation	1957	11,000	-	133,984
*Rolling Hills	Rolling Hills	Irrigation	1938	25,000	-	46,839
Rose Glen Water Users	Schuler	Multi-purpose Dam	1957	200	150	6,884
Ross Creek	Irvine	Irrigation	1950	3,000	5,000	47,998
Ross Lake Com, Pasture Assoc.	Cardston	Dugouts (4)	1961	-	-	2,160
Ross Lake Community	Raymond	Stockwatering	1950	-	300	7,987
Rough Meadow Reservoir	Coronation	Irrigation	1951	200	-	2,471
Ruks	Pincher Creek	Irrigation & Dam	1954	900	250	6,484
Sarcee Indian Band Reserve						
#145	Calgary	Dugouts (2)	1961	-	-	1,575
Schuler Waters Users	Schuler	Multi-purpose Res.	1957	-	5	5,443
Serviceberry Creek	near Drumheller	Irrigation	1949	1,200	500	17,518
Seven Persons	Seven Persons	Stockwatering Dam	1943	-	800	12,103
Seyvern Creek	Rosebud	Irrigation & Dam	1950	1,000	1,000	24,990
Sheerness Grazing (Blois)	Roselynn	Stockwatering	1953	-	12	3,797
Sheerness #2	Roselynn	Stockwatering	1954	-	50	2,190
Snake Creek	Calgary	Irrigation & Dam	1950	500	300	15,976
Spondin	Hanna	Dugout	1955	-	1.5	1,000
Spruce Coulee	Elkwater	Stockwatering Dam	1959	-	1,000	12,496
Spruce Co-op.	Parkland	Stockwatering Dugout	1960	-	-	3,529
Starland, M.D. of	Morrin	Stockwatering	1956	-	45	3,196
Stehr Coulee	Walsh	Multi-purpose Res.	1956	-	26	4,570
Sterling Pasture Co-op. Ltd.	Sterling	Dugout	1961	-	-	1,000
Sounding Creek	Cereal	Irrigation	1949	8,000	5,600	51,988
South MacLeod	MacLeod	Irrigation	1948	6,000	-	82,614
Squaw Coulee	High River	Irrigation	1949	2,000	455	17,999
Sundial	Champion	Dugout	1959	-	6	3,102
Sundial	Champion	Dugout	1961	-	-	3,650
Swalwell	Swalwell	Multi-purpose Res.	1957	280	300	9,463



Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
Three Hills	Three Hills	Stockwatering	1948	-	120	19,652
Twin Lakes	Chancellor	Irrigation	1954	500	-	12,498
Twin River Grazing	Twin River	Stockwatering	1953	-	125	4,486
Twin River Grazing Assoc.	Milk River	Dugouts (8)	1961	-	-	4,726
Two Lakes	Elkwater	Multi-purpose Res.	1958	1,500	1,900	14,378
Vulcan Dam	Vulcan	Irrigation	1951	400	150	3,997
Vauxhall	Vauxhall	Stockwatering	1948	-	30	5,883
Waddington	Vale	Multi-purpose Res.	1957	-	12	2,904
Walsh Flats	Walsh	Irrigation	1953	2,100	25,000	4,700
Watts Flats	Watts	Flood Irrigation	1958	2,000	-	6,147
(Bull Pound-Lone Butte)	Claresholm	Dugout	1960	-	-	2,263
West Trout Creek	Rockyford	Irrigation	1952	-	-	4,744
Wheatacre #2	Rockyford	Irrigation	1950	1,600	1,500	12,976
Wheatacre Dam	Cressday	Irrigation	1936	3,600	4,500	24,370
Wild Horse Storage	Hussar	Irrigation	1950	1,000	500	9,993
Wintering Hills	Medicine Hat	Multi-purpose Res.	1957	420	500	14,403
Wisdom Waters Users	Cardston	Irrigation	1955	400	-	3,593
Woolford Community Project	Milk River	Dugout	1959	-	6	8,291
Writing on Stone	Thelma	Irrigation	1953	400	800	6,592
Yeast Reservoir						

\* - P.F.R.A. gave assistance to a project already in existence to improve storage capacities, canals and distribution systems.

**APPENDIX V**  
**CUMULATIVE STATEMENT**  
Development and Operation of Community Pastures under the  
Prairie Farm Rehabilitation Act  
1938 to March 31, 1962

Fiscal Year	No. of Pasture Units in Operation	Area of Land in Pastures (acres)	Total Cost of Construction of Pastures \$	Livestock Units Carried on Pastures	X Acres per Unit of Live-stock	Revenue \$	Operating Costs \$	Net Operating cost per Unit of Livestock \$	Average Charge per Unit Livestock to Farmers \$
1938-39	14	189,800	165,995.03	3,231	58.7	6,339.92	10,185.52	3.15	1.96
1939-40	26	612,300	663,471.25	11,522	53.1	21,632.71	20,945.84	1.82	1.88
1940-41	35	884,500	1,004,305.91	23,245	38.1	43,451.56	35,291.05	1.52	1.87
1941-42	38	936,548	1,187,360.92	33,230	28.2	65,434.89	50,607.22	1.52	1.97
1942-43	45	1,261,100	1,129,487.54	51,127	24.7	98,292.32	79,906.76	1.56	1.92
1943-44	46	1,268,140	1,558,055.31	54,472	23.3	111,114.25	107,534.66	1.97	2.04
1944-45	49	1,337,320	1,699,012.21	59,997	22.3	151,461.08	117,064.90	1.95	2.52
1945-46	50	1,361,440	1,857,020.37	67,778	20.1	167,045.16	136,567.09	2.01	2.46
1946-47	53	1,412,860	2,072,274.21	68,493	20.6	198,115.27	145,292.51	2.12	2.89
1947-48	53	1,417,320	2,208,919.12	66,347	21.4	203,888.11	161,471.05	2.43	3.07
1948-49	54	1,436,480	2,486,277.28	71,393	20.1	204,012.40	175,666.27	2.46	2.86
1949-50	54	1,439,680	2,809,196.14	70,308	20.5	211,624.23	172,255.25	2.45	3.01
1950-51	56	1,521,080	3,237,330.55	68,858	22.1	221,129.45	217,867.15	3.16	3.21
1951-52	57	1,574,642	3,426,586.10	77,240	20.4	335,327.16	237,742.13	3.08	4.34
1952-53	59	1,652,020	3,754,098.41	94,137	17.5	438,513.75	373,737.36	3.97	4.66
1953-54	60	1,678,736	3,963,572.83	109,583	15.3	507,179.14	490,807.89	4.48	4.55
1954-55	60	1,696,900	4,273,916.79	106,322	15.9	496,805.78	466,153.69	4.38	4.66
1955-56	60	1,728,700	4,509,668.59	108,499	15.8	499,045.13	501,540.73	4.67	4.60
1956-57	61	1,759,570	4,832,863.47	117,441	14.9	548,601.01	508,002.83	4.33	4.67
1957-58	61	1,796,275	5,119,317.01	119,398	15.0	552,938.40	607,129.23	5.08	4.63
1958-59	62	1,815,265	5,509,958.43	117,032	15.5	542,606.90	686,448.88	5.87	4.64
1959-60	64	1,818,464	5,800,342.43	124,812	14.6	705,785.32	742,915.21	5.95	5.65
1960-61	65	1,896,173	6,254,224.42	122,813	15.4	656,708.97	879,811.85	7.15	5.35
1961-62	68	2,088,704	6,845,655.79	146,672	14.2	860,808.25	1,128,255.75	7.69	5.87
						<u>7,847,861.16</u>	<u>8,053,200.82</u>		

x - A livestock unit indicates one head of cattle, one horse, or five sheep.  
A pasture unit may include one or more pastures, but it is operated under one management.



# APPENDIX VI

## P.F.R.A. COMMUNITY PASTURES IN OPERATION DURING THE FISCAL YEAR ENDED MARCH 31, 1962

Community Pasture & Headquarters	Total Area of Pasture Fenced (Acres)	Accumulated Cost of Construction March 31, 1961	Accumulated Cost of Construction March 31, 1962	1961-1962 Stock Pastured	
				Cattle	Horses
<b>Pasture Units - Saskatchewan</b>					
Coalfields #4, North Portal	32,860	168,350.39	172,736.76	3,818	57
Estevan Cambria #5-6, Macoun	6,720	20,196.57	21,191.07	480	5
Masefield #17, Orkney	36,320	116,697.63	120,697.63	1,720	-
Lone Tree #18, Bracken	33,600	100,350.71	107,216.97	1,446	-
Battle Creek #20, Divide	69,920	169,123.89	169,949.49	2,763	-
Nashlyn, #21, Consul	61,520	97,211.43	97,211.43	2,588	3
Govenlock #22, Govenlock	68,800	118,191.72	118,191.72	2,184	-
Lomond #37, #1 Pasture, Goodwater	23,360	91,750.96	92,010.85	2,959	39
Lomond #37, Pasture #3, Maxim	18,400	84,741.93	93,533.58	1,726	16
Laurier #38, Lomond #37 - #2, Radville	37,175	113,128.19	117,361.14	3,160	47
The Gap #39, Ceylon	13,920	90,718.80	91,335.44	1,308	19
Val Marie #47, Pasture #1, Val Marie	110,000	280,003.90	280,550.38	5,462	-
Val Marie Beaver Valley #2, Admiral	57,680	57,203.67	60,686.85	3,169	19
Reno #51, Pasture #1, Robsart	17,120	63,533.54	64,633.54	1,051	4
Reno #51, Pasture #2, Consul	11,360	29,877.83	29,877.83	690	-
Tecumseh #65, Forget	18,880	82,558.52	95,510.49	2,159	17
Brokenshell #68, Pasture #1, Yellow Grass	22,720	107,794.02	112,282.91	2,072	50
Brokenshell #68, Pasture #2, Weyburn	8,160	16,651.04	16,730.80	442	1
Excel #71, Ormiston	20,500	79,670.48	80,993.88	1,836	-
Key West #70, Kayville	10,240	38,428.53	38,641.58	977	3
Auvergne Wise Creek #76-77, Cadillac	42,880	149,257.05	149,511.56	3,332	-
Wellington #97, Tyvan	25,360	118,817.95	125,554.55	3,175	54
Caledonia-Elmsthorpe #99-100, Milestone	26,400	120,757.03	121,804.41	2,086	37
Shamrock #134, Shamrock	26,080	87,147.26	87,147.26	1,637	-
Swift Current-Webb 137-8, Swift Current	18,720	83,756.75	98,849.80	1,599	-
Gull Lake #139, Tompkins	10,720	34,490.60	34,992.31	674	-
Big Stick #141, Maple Creek	22,260	46,863.40	48,320.53	1,940	-
Bitter Lake #142, Maple Creek	43,710	127,956.07	130,213.93	2,482	-

Community Pasture & Headquarters	Total Area of Pasture Fenced (Acres)	Accumulated Cost of Construction March 31, 1961	Accumulated Cost of Construction March 31, 1962	1961-1962		
				Cattle	Horses	Sheep
<b>Pasture Units - Saskatchewan (cont'd)</b>						
Spy Hill #152, Welby (operated in conjunction with Ellice, Man.)	19,570	58,871.71	58,871.71	2,496	9	
Elbow #223-4, Elbow	30,080	84,600.53	84,839.03	2,146	52	
Beaver Hills #245-6, Homefield P.O.	44,160	143,617.54	157,100.31	4,456	193	
Willner #253, Davidson	13,280	84,903.92	86,368.38	1,726	7	
Coteau #255, Birsay	27,520	64,261.84	67,795.84	1,533	24	
Monet #257, Elrose	46,840	111,984.14	124,133.00	3,100	25	
Fairview #258, Chipperfield	17,000	123,963.45	126,181.09	1,395	-	
Newcombe #260, Glidden	52,960	181,205.44	195,010.30	3,315	23	
Mantario #262, Empress, Alta.	24,960	81,666.07	83,767.24	1,919	-	
Cote #271, Togo	9,920	78,962.31	79,890.71	1,247	17	
Mt. Hope Prairie Rose #279-309, Semans	32,180	110,173.39	112,957.41	2,570	-	
Wreford #280, Hatfield	13,870	83,615.95	83,615.95	1,200	-	
McCraney #282, Davidson	10,720	69,895.27	70,021.52	1,509	-	
Rudy Rosedale #284-3, Broderick	19,200	90,880.19	90,880.19	1,667	49	
Hillsburgh #289, Brock	13,600	56,880.27	57,625.39	948	-	
Eagle Lake #289-319, Netherhill	23,249	95,768.42	105,168.41	1,155	-	
Kindersley-Elma, #290-1, Smiley	21,400	121,382.25	123,324.68	1,113	6	
Usborne #310, Venn	12,680	58,956.64	60,703.25	1,257	-	575
Dundurn #314, Dundurn	44,840	114,757.38	118,528.25	2,304	-	
Montrose #315, Donavon	21,600	78,341.95	85,657.27	1,080	-	
Oakdale #320, Beaufield	20,800	75,411.20	98,607.41	1,721	5	
Antelope Park #322, Hoosier	34,320	112,818.28	112,978.89	2,729	35	
Wolverine #340, Plunkett	17,280	76,857.29	83,276.31	2,026	-	
Mariposa #350, Kerrobert	26,880	103,040.78	103,096.08	1,936	-	
Progress #351, Kerrobert	19,680	67,877.84	74,551.62	1,559	-	
Hearts Hill #352, Compeer, Alta.	15,520	63,740.01	64,988.96	1,595	-	
Park #375, Langham	7,040	22,633.89	22,633.89	383	-	



Construction Pasture & Headquarters	Total Area of Pasture Fenced (Acres)	Accumulated Cost of Construction March 31, 1961	Accumulated Cost of Construction March 31, 1962	1961-1962		
				Cattle	Horses	Sheep
Pasture Units - Saskatchewan (cont'd)						
Battle River-Cutknife #438-9	31,680	99,026.56	99,932.39	1,566	15	
Royal #465, Marcelin	65,120	233,949.90	237,816.18	4,748	19	
Paynton #470, Paynton	24,480	88,978.58	90,641.54	1,802	22	
Totals for Saskatchewan	1,657,814	5,534,252.85	5,738,701.89	117,136	872	1,999
Special Project - Bitter Lake Irrigation included in Bitter Lake Pasture.						
Pasture Units - Manitoba						
Ellice Pasture, Welby, Sask. (operated in conjunction with Spy Hill #152)	20,320	28,746.37	28,998.21	-	-	1,600
Archie Pasture, Welwyn, Sask.	39,740	97,852.50	99,482.17	2,472	16	
Portage Pasture, Poplar Point	14,640	46,399.28	48,923.97	2,802	59	
Woodlands Pasture, Poplar Point	20,960	70,992.27	75,389.92	3,282	73	
Lakeview, Langruth	29,280	82,148.14	84,820.82	2,698	24	
Westbourne, Gladstone	12,700	51,419.83	57,664.63	1,845	8	
Langford, Neepawa	20,000	76,670.69	77,559.36	2,211	29	
San Clara	8,320	33,679.63	34,608.03	-	-	
McCreary	71,820	232,062.86	244,935.46	1,616	17	
Wallace, Elkhorn, Man.	3,280	(Operated by the R.M. of Wallace)				
Dauphin - Ethelbert, Ukraina	23,240	-	120,014.99	1,222	18	
Turtle Mountain, Boissevain	23,870	-	143,750.19	1,441	7	
Total for Manitoba	288,170	719,971.57	1,016,147.75	19,589	251	1,600
Pasture Units - Alberta						
Suffield	142,720	-	90,806.15	8,104	-	
Total for Alberta	142,720	-	90,806.15	8,104	-	
GRAND TOTALS	2,088,704	6,254,224.42	6,845,655.79	144,829	1,123	3,599

**APPENDIX VII**  
**MAJOR PROJECTS - IRRIGATION, RECLAMATION AND WATER STORAGE**  
 (Projects by Special Votes of Parliament, Administered by P.F.R.A.)  
 to March 31, 1962

Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
<b>MANITOBA</b>						
Assiniboine River Diking & Cut Off	Brandon	River Control	Incomplete	-	-	1,186,158.00
North-West Escarpment Reclamation Proj. - Riding Mt. Area	Dauphin	Watershed Control	Incomplete	-	-	1,102,164.00
Fairford River Project	Lake Manitoba	Flood Control	1960	-	-	286,891.00
Saskatchewan River Reclamation - Pasquia Area	The Pas	Reclamation	Incomplete	135,000	-	2,256,388.00
<b>ALBERTA</b>						
Bow River (a) Purchase of Canada Land & Irrigation Company (b) Development & Construction	Medicine Hat	Irrigation	Incomplete	235,000	408,862	54,398.00
St. Mary Belly River Diversion	Lethbridge Lethbridge	Irrigation Irrigation	Incomplete 1950	510,000 -	320,000 -	2,353,182.00 21,195,793.00 16,243,519.00 53,901.00
<b>BRITISH COLUMBIA</b>						
Cawston Benches	Keremeos	Irrigation (pump)	1951	629	2,000	185,491.00
Chase & Johnston - Western Canada Ranching	Kamloops	Irrigation	1951	755	-	98,243.00
Western Canada Ranching #2	Kamloops	Irrigation (pump)	1950	54	-	58,069.00
Lillooet - Pemberton	Pemberton	River Control	1953	-	-	1,056,539.00
South Thompson - Niskonlith Gravity Project	Kamloops	Irrigation	Incomplete	1,030	1,200	12,282.00
Westbank Project	Kelowna	Irrigation	1950	1,200	2,500	537,450.00
Bankhead Irrigation Project	Kelowna	Irrigation	1951	92	-	32,229.00
Penticton West Bench	Penticton	Irrigation (pump)	1953	800	-	66,362.00
B.C. Fruitlands	Kamloops	Irrigation	Incomplete	2,000	-	200,000.00

(Above includes ONLY Construction Costs)



Name of Project	Location	Type of Project	Completed	Irr. Ac.	Stor. Cap. Acre Feet	Costs
SASKATCHEWAN						
South Saskatchewan River Project	Outlook	Multi-purpose	Incomplete	500,000 (Including 24,000 in Qu'Appelle extension)	-	32,032,378.00
Buffalo Pound Project	Qu'Appelle Valley	Urban Water Supply	1960	-	42,000	2,187,359.00
- Eyebrow Lake Diversion	Eyebrow	Water Supply	1960	-	-	98,376.00

(Above includes ONLY Construction Costs)

# APPENDIX VIII PFRA EXPENDITURES BY ACTIVITIES April 1, 1935 to March 31, 1962

## ADMINISTRATION

Ottawa and Regina Administration	\$ 2,692,427
Engineering Services — Surveys, Design, Soil Mechanics, Drainage Studies, Legal Surveys, Supervision of Construction	20,665,335

## LAND UTILIZATION

Cultural work — Soil Drifting, etc. (Exp. Farm Service)	4,966,394
Community Pastures — Construction, Operation and Maintenance Movement of Settlers	21,553,746 227,841

## WATER DEVELOPMENT

Small Farm Projects	23,354,077
Community, Large Water Storage and Irrigation Projects Supervision	19,042,118 3,518,603
Equipment — Purchase and Repairs, Service Depot	7,791,874

## MAJOR PROJECTS: IRRIGATION, RECLAMATION AND CONSERVATION

St. Mary Irrigation Project	23,748,648
Bow River Irrigation Project	30,577,445
South Saskatchewan River Project	40,332,576
Assiniboine River Dyking	1,349,288
B.C. Reclamation and Development, incl. Lillooet Project - Land Protection and Reclamation, Manitoba and Eastern Canada	3,310,182 3,924,221
Miscellaneous Projects — Construction	4,144,500
	<u>\$211,199,275</u>

## REVENUE:

Community Pasture Operations	\$ 8,435,726
Irrigation Project Operation and General Revenue	4,134,074
	<u>\$12,569,800</u>











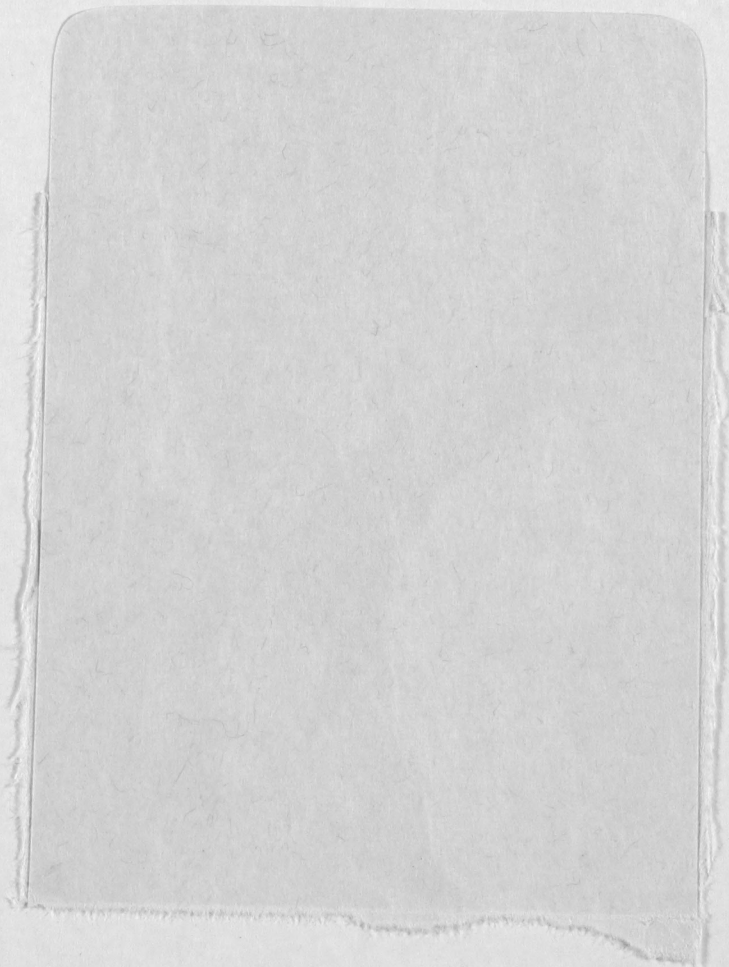
[illegible][illegible]



HD 1781 A2 P8223 1961/1962  
CANADA PRAIRIE FARM  
REHABILITATION ADMINISTRATION  
ANNUAL REPORT PRAIRIE FARM  
40025453 SCI



\*000031055767\*





**B42725**

ROGER DUHAMEL, F.R.S.C.  
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY  
OTTAWA